Contract Nos.: 500-94-0011, 500-95-0032
MPR Reference Nos.: 8195, 8309

EVALUATION OF THE GRANT PROGRAM FOR RURAL HEALTH CARE TRANSITION
1997 ANNUAL PROGRESS REPORT

January 16, 1997

Authors:

Meghan Bloome
Lucy Chen
Charles Nagatoshi

Submitted to:

Health Care Financing Administration
Mail Stop 3-C-15-06
7500 Security Boulevard
Baltimore, MD 21244-1850

Project Officer:
Siddhartha Mazumdar

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
(609) 799-3535

Project Directors:
Valerie Cheh
Craig Thornton

Deputy Project Directors:
Jeanette Bergeron
Charles Nagatoshi

CONTENTS

Chapter | Page

EXECUTIVE SUMMARY xi

I INTRODUCTION 1

A. LEGISLATIVE HISTORY AND PURPOSE OF THE GRANTS PROGRAM 1

B. NUMBER AND DISTRIBUTION OF GRANTEES 4

II SELF-REPORTED PROGRESS OF 1994 GRANTEES 7

A. STATUS OF 1994 GRANTEES 7

B. CHARACTERISTICS OF GRANTEE PROJECTS 7

1. Project Objectives 7
2. Reported Changes in Objectives 9

C. PROGRESS OF 1994 GRANTEES 11

D. GRANT EXPENDITURES 13

III SELF-REPORTED PROGRESS OF 1995 GRANTEES 17

A. STATUS OF 1995 GRANTEES 17

B. CHARACTERISTICS OF GRANTEE PROJECTS 19

1. Grantee Objectives 19
2. Reported Changes in Objectives 22

C. PROGRESS OF 1995 GRANTEES 23

D. GRANT EXPENDITURES 25

CONTENTS *(continued)*

Chapter **Page**

IV 1996 GRANT SOLICITATION PROCESS AND APPLICANT CHARACTERISTICS 27

A. SOLICITING AND SCORING THE APPLICATIONS AND SELECTING GRANTEES 27

B. GEOGRAPHIC DISTRIBUTION OF APPLICANTS 29

C. FEDERAL AND EXTERNAL FUNDING 32

1. Federal Funding 32
2. External Funding 33

V DO 1995 GRANTEES FACE THE SAME CHALLENGES AS THE 1989 AND 1990 GRANTEES? 37

A. SERVICE AREA PROFILES OF THE 1989, 1990, AND 1995 GRANTEES 37

B. DO THE 1995 GRANTEES FACE THE SAME SERVICE AREA CHALLENGES? 40

C. DO THE 1995 GRANTEES FACE THE SAME SERVICE UTILIZATION PROBLEMS? 40

D. DO THE 1995 GRANTEES FACE THE SAME STAFFING PROBLEMS? 48

E. ARE 1995 GRANTEES IN BETTER FINANCIAL CONDITION? 50

F. DO THE 1995 GRANTEES' PERCEPTION OF RURAL PROBLEMS DIFFER? 52

G. CONCLUSION 55

CONTENTS *(continued)*

Chapter **Page**

VI ARE DIFFERENCES BETWEEN REPEAT AND FIRST-TIME GRANTEES CONSISTENT WITH PRIOR GRANT PROJECTS? 57

A. DO SERVICE AREA CHARACTERISTICS OF REPEATERS AND FIRST-TIMERS DIFFER? 58

B. DO HOSPITAL CHARACTERISTICS OF REPEATERS AND FIRST-TIMERS DIFFER? 62

C. DO STAFFING NEEDS OF REPEATERS AND FIRST-TIMERS DIFFER? 65

D. IS SERVICE UTILIZATION BETTER AMONG REPEAT GRANTEES? 68

E. ARE REPEAT GRANTEES IN BETTER FINANCIAL CONDITION THAN FIRST-TIMERS? 71

F. SUMMARY AND CONCLUSION 71

VII GRANTEES PLANNING NEW SERVICES--1994 GRANTEES 75

A. SAMPLE SELECTION AND PROTOCOL DEVELOPMENT 76

B. IMPLEMENTATION EXPERIENCE 76

1. Grantees Experienced Varying Success in Implementing New Projects 76
2. Problems 78
3. New Services 81
4. Grantees Did Not Implement or Discontinued New Services 87

CONTENTS *(continued)*

Chapter **Page**

VII (continued)

C. OTHER HOSPITAL INITIATIVES 90

1. Potential for Growth in Non-Acute Care 91
2. Diagnostic Services 91
3. Unprofitable Services 92
4. Profitable New Services 93

D. STRATEGIC OBJECTIVES, HOSPITAL WEAKNESSES, THREATS 93

1. Improving Community Relations 93
2. Weaknesses and Threats 96
3. Strengths and Opportunities 96

E. CONCLUSION 98

REFERENCES 101

APPENDIX A: RURAL HEALTH CARE TRANSITION GRANTEES AND FIRST-YEAR AWARDS 1996 103

APPENDIX B: SCORE ADJUSTMENT PROCESS 111

APPENDIX C: TELEPHONE INTERVIEW PROTOCOL, 1994 GRANTEES 115

TABLES

Table		Page
II.1	1994 GRANTEE STATUS	8
II.2	PROJECT PROGRESS AFTER 18 MONTHS, BY OBJECTIVE (1994 GRANTEES)	10
III.1	1995 GRANTEE STATUS	18
III.2	PROJECT PROGRESS AFTER 3 MONTHS, BY OBJECTIVE (1995 GRANTEES)	20
IV.1	RURAL HEALTH CARE TRANSITION GRANTS PROGRAM: 1996 ELIGIBLE HOSPITALS, PROPOSALS RECEIVED, AND AWARDS	30
IV.2	EXTERNAL FUNDING OF 1996 APPLICANTS	34
V.1	AREA CHARACTERISTICS OF THE 1989, 1990, AND 1995 GRANTEES	38
V.2	HEALTH SERVICE PROVIDERS LOCATED IN THE GRANTEES' SERVICE AREAS (1989, 1990, AND 1995 GRANTEES)	41
V.3	HOSPITAL CHARACTERISTICS AND SERVICES OF THE 1989, 1990, AND 1995 GRANTEES	43
V.4	SERVICE UTILIZATION OF THE 1989 AND 1995 GRANTEES	45
V.5	STAFFING OF THE 1989, 1990, AND 1995 GRANTEES	49
V.6	FINANCIAL INDICATORS OF THE 1989, 1990, AND 1995 GRANTEES	51
V.7	HOSPITALS' PERCEPTION OF THEIR PROBLEMS (1989, 1990, AND 1995 GRANTEES)	53
VI.1	AREA CHARACTERISTICS OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT	59

TABLES *(continued)*

Table **Page**

VI.2 SERVICE AREA CHARACTERISTICS OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT 61

VI.3 HOSPITAL CHARACTERISTICS AND SERVICES OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT 63

VI.4 STAFFING OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT 66

VI.5 NUMBER OF HOSPITALS WITH NONPHYSICIAN STAFF SHORTAGES OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT 67

VI.6 SERVICE UTILIZATION OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT 69

VI.7 FINANCIAL INDICATORS OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT 72

VII.1 NEW SERVICES PROPOSED AND IMPLEMENTED 77

VII.2 SOURCES OF FUNDING FOR NEW SERVICES 85

VII.3 OBSTACLES TO NEW SERVICE 88

VII.4 OTHER NEW SERVICES PLANNED BY GRANTEES 94

VII.5 GRANTEES' REPORTED STRATEGIC OBJECTIVES 95

VII.6 PERCEIVED THREATS TO GRANTEE VIABILITY 97

VII.7 GRANTEE STRENGTHS AND OPPORTUNITIES 99

A.1 FUNDS AWARDED UNDER THE RURAL HEALTH CARE TRANSITION GRANTS PROGRAM, 1996 105

FIGURES

Figure **Page**

I.1 NUMBER AND PERCENTAGE OF ELIGIBLE HOSPITALS AWARDED RURAL HEALTH CARE TRANSITION (RHCT) GRANTS BETWEEN 1989 AND 1996, BY STATE 5

EXECUTIVE SUMMARY

Congress introduced the Rural Health Care Transition (RHCT) grants program to improve the financial and managerial capacity of small rural hospitals. The enabling legislation, the Omnibus Budget Reconciliation Act of 1987 (Public Law 100-203), which was later amended by the Omnibus Budget Reconciliation Act of 1989 (Public Law 101-239), authorized the Health Care Financing Administration (HCFA) to award nonproprietary, non-Federal rural hospitals with fewer than 100 beds with grants up to $50,000 a year for a maximum of 3 years to help improve their financial stability and managerial capacity. Congress has not authorized funding for the program beyond the 1996 fiscal year.

Since HCFA implemented the RHCT grants program in September 1989, a total of 1,224 grants have been awarded to 938 different hospitals. The number of grants awarded each year has varied, with smaller numbers of awards during the last three years. In 1989, HCFA awarded 184 grants. This was followed by 212 grants in 1990, 187 in 1991, 163 in 1992, 178 in 1993, 129 in 1994, 61 in 1995, and finally, 110 in 1996.

MOST GRANTEES IMPLEMENTED PROPOSED NEW SERVICES

Telephone discussions with a sample of 18 1994 grantee administrators who proposed to implement new services with their grants revealed that most (12 grantees) implemented the services. Three of the six proposed services that were not implemented were dropped early in the planning phase when hospital affiliations changed or staff identified problems such as competition and inadequate financial support. The other three grantees planned to implement the new service after they made space in their facilities for the new service. The implemented services included five rural health clinics (RHCs), four cardiac rehabilitation units, two skilled nursing units, and one case management service.

The RHCT grant allowed grantees to propose new services that would not have been implemented without the grant. Most grantees planned their grant projects to respond to community need, rather than to improve the hospital's finances. While this motivation generated widespread support from the board, staff, and community to help implement the new service, few of the new services were financially self-supporting. The availability of grant funds enabled grantees to implement services that were less profitable than hospital-funded new services. Nonetheless, grantees expect that the publicity or community support generated from these new services will help the hospital's viability in the long term, even if the services never become financially self-supporting.

The new services implemented with the grant rarely addressed other hospital concerns and one grant project added to a grantee's problems. The new services implemented by two grantees helped those hospitals address some problems. One grantee may recapture patients who had been going elsewhere, through its grant-funded clinic in its emergency room. The other grantee improved its old building with its grant-funded, modern skilled nursing facility. One grantee lost patients and some community trust when it closed its unprofitable RHC.

1995 GRANTEES ARE FACING SLIGHTLY DIFFERENT CHALLENGES

We compared the 1995 grantees to the 1989 and 1990 grantees. We made this comparison in an effort to learn whether the challenges facing the 1995 grantees were similar to the ones faced by the grantees selected in the first two years of the RHCT grant program. We found that, although the 1995 grantees were facing slightly different challenges, many of these differences may result from their more remote location and larger facility size. Other differences appear to result from nationwide changes that have taken place in health care delivery.

The 1995 grantees were located in more remote areas that were more sparsely populated than the 1989 and 1990 grantees' areas. The typical population density of the 1995 grantees' service area was 18 persons per square mile in 1990 compared to 26 and 22 for the 1989 and 1990 grantees, respectively. They were also 8 minutes farther away from the nearest tertiary care hospital than were the 1989 grantees. Their more remote location may have made it more difficult for the 1995 grantees to recruit physicians. The 1995 grantees were located in areas that were more likely to have been designated as a whole- or part-county Health Professional Shortage Area. They were also more likely than the 1989 grantees to be recruiting for physicians and to be recruiting for a larger number of physicians. The physician shortage problem, in turn, may have contributed to the higher volume of emergency care provided by the 1995 grantees. The shortage of physicians may have forced area residents to go to the emergency room for their primary care.

The 1995 grantees themselves tended to be larger in size than the 1989 and 1990 grantees. A smaller proportion of the 1995 grantees than the 1989 and 1990 grantees had fewer than 26 licensed beds. They were more likely than the early grantees to have between 51 and 75 licensed beds. Their larger size, along with the diffusion of technology over time, may have contributed to a larger proportion of the 1995 grantees with computed axial tomography and magnetic resonance imaging services. Their larger physician, nursing, and physical therapy staffs may also be a consequence of their larger size. Similarly, their larger size, as well as their greater remoteness, may have resulted in the 1995 grantees being more successful in capturing their patient base and having a slightly better occupancy rate than the early grantees.

Other differences between the 1995 grantees and the 1989 and 1990 grantees appear to be consistent with national trends. The 1995 grantees had fewer beds and lower admission rates relative to their population and averaged more outpatient visits, which factors are consistent with the national trend to downsize and provide more outpatient care. In addition, finding a greater proportion of 1995 grantees with RHCs and home health agencies in their service areas is consistent with the national growth of these care providers.

There were other differences between the 1995 grantees and the 1989 and 1990 grantees that may or may not have resulted from the 1995 grantees' greater remoteness and larger size. A larger proportion of the 1995 grantees' inpatient days were covered by Medicare. However, private insurance covered a smaller proportion of the 1995 grantees' inpatient days, especially in comparison to the 1989 grantees. The concerns of the 1995 grantees also differed somewhat from those of the 1989 and 1990 grantees. The 1995 grantees were much more likely to be concerned about changes in Medicare and Medicaid reimbursement and patient out-migration than were the early grantees.

REPEAT GRANTEES ARE DIFFERENT FROM FIRST-TIME GRANTEES

We also compared 1995 grantees that were previously awarded RHCT grants with those that were receiving RHCT grants for the first time. We made this comparison to understand whether first-time recipients differed from prior recipients and, if so, whether the differences were the result of past RHCT grant projects. However, because other explanations cannot be ruled out (for example, administrators' willingness to make changes) and because the grantees were not randomly selected by HCFA, the results cannot be conclusively attributed to the RHCT grants program.

In the past, RHCT grantees frequently pursued grant projects to upgrade their outpatient services or to recruit physicians. Among the 1989 and 1990 grantees, nearly 60 percent used their RHCT grant funds for projects that upgraded their outpatient services and approximately 25 percent of them used their grants to recruit physicians (Cheh and Wooldridge March 1993; and Wooldridge et al. 1994).

We found a number of differences between first-time and repeat grantees that may have resulted from the grants program. Previous grantees were more likely than first-time grantees to have RHCs. They also were more likely to have a wider array of outpatient and after-care services. In addition, a greater proportion of the repeat grantees offered swing bed and skilled nursing bed services and therapy, rehabilitation, and home health services. Not surprisingly, they had a higher volume of outpatient visits than did first-time grantees.

First-time grantees, on the other hand, tended to operate larger facilities that emphasized traditional acute-care services. They were more likely to have intensive and cardiac care units and offer diagnostic radiology services. They averaged more hospital days than repeat grantees. Furthermore, although the first-time grantees had the same number of physicians on their staff as the repeat grantees, they were more likely to be recruiting physicians and, on average, to be recruiting a larger number of physicians. They averaged more emergency room visits than repeat grantees, though much of the difference appears to be a result of the higher volume of nonemergency care being provided in their emergency room.

GRANTEE STATUS

Of the 300 grants awarded in 1994, 1995, and 1996, 296 are still active. All four of the inactive grantees discontinued their grants. Three of the grantees, all from the 1995 cohort, left the program this year. Between October 1 and December 31, 1995, the first three months of the 1995 grantees' grant project, one grantee left the grant program after it became a for-profit hospital and was ineligible for grant funds. Since then, a second hospital withdrew from the program after concluding the cost of the project would outweigh the benefits, and a third hospital, after merging with another grantee, indicated it would be dropping its grant in fiscal year 1996.

RHCT GRANTEE STATUS

	Year of Award							
	1989	1990	1991	1992	1993	1994	1995	1996
Months Since Award	--	--	--	--	30	15	3	--
Continuing	--	--	--	--	168	128	58	110
Completed	174	181	162	154	0	0	0	0
Discontinued Grant	6	26	22	7	9	1	3	0
Hospital Closed	4	5	3	2	1	0	0	0
Total Awards	**184**	**212**	**187**	**163**	**178**	**129**	**61**	**110**

1994 GRANTEES: PROGRESS AFTER 18 MONTHS

The most popular objectives were expanding outpatient services (63 percent), recruiting providers (44 percent), improving management (40 percent), and training and staff development (37 percent). Two objectives, coordinating with other providers, and planning construction or renovation, decreased markedly in popularity between 3 months and 18 months into the grant period. After 18 months, slightly less than half of 1994 grantees were on or ahead of schedule, and 42 percent reported being behind in one or more objectives. Grantees implementing outpatient services were most likely to be behind schedule (36 percent). Four percent of grantees experienced delays in all objectives, which they attributed to lack of funds, regulatory constraints, and lack of personnel. However, 10 percent of 1994 grantees had completed all of their objectives, and 57 percent had completed at least one objective. About one-sixth of grantees reported implementing outpatient services or improving management, and about one-fifth reported successful provider recruitment.

1995 GRANTEES: PROGRESS AFTER 3 MONTHS

The two most popular objectives of the 1995 grantees involved management improvements (62 percent), and coordination with other service providers (57 percent). As with previous grantees, expanding outpatient services (50 percent) and recruiting (36 percent) were also popular with the 1996 grantees. The majority of the 1995 grantees have been able to keep to their schedules during the first three months of their grant program. Of the 58 reporting hospitals, 62 percent were on schedule and another 3 percent had completed all of their grant objectives. The objectives the grantees were most likely to have completed were staff recruitment, service coordination, and outpatient services. However, outpatient services and recruitment projects were also among the projects most likely to be behind schedule by at least a month. Others that were most often behind schedule were transportation and inpatient services projects. During the first three months, the average grantee spent $4,214 of its grant funds, mostly on salaries and fringe benefits.

1996 GRANTEE SOLICITATION

In 1996, 270 hospitals in 43 states applied for RHCT grants. The number of applicants is the lowest since the grant program began. HCFA awarded 110 grants, an increase over last year's program low of 61 grants. As in previous years, HCFA selected grantees on the basis of merit and a desire to create regional balance in the program. HCFA awarded first-year funding of $4,520,834 for the first year to 109 grant recipients; an average award of $41,476. One grantee will not be receiving RHCT grant funds in 1996 because it is currently receiving RHCT funds through an earlier grant. Again, as in previous years, the largest proportion (53 percent) of the grantees are from the Midwest region, reflecting high application rates from this area.

The most popular objectives were expanding outpatient services (63 percent), recruiting providers (44 percent), improving management (40 percent), and training and staff development (37 percent). Two objectives, coordinating with other providers, and planning construction or renovation, decreased markedly in popularity between 3 months and 18 months into the grant period. After 18 months, slightly less than half of 1994 grantees were on or ahead of schedule, and 42 percent reported being behind in one or more objectives. Grantees implementing outpatient services were most likely to be behind schedule (36 percent). Four percent of grantees experienced delays in all objectives, which they attributed to lack of funds, regulatory constraints, and lack of personnel. However, 10 percent of 1994 grantees had completed all of their objectives, and 57 percent had completed at least one objective. About one-sixth of grantees reported implementing outpatient services or improving management, and about one-fifth reported successful provider recruitment.

1995 GRANTEES: PROGRESS AFTER 3 MONTHS

The two most popular objectives of the 1995 grantees involved management improvements (62 percent), and coordination with other service providers (57 percent). As with previous grantees, expanding outpatient services (50 percent) and recruiting (36 percent) were also popular with the 1996 grantees. The majority of the 1995 grantees have been able to keep to their schedules during the first three months of their grant program. Of the 58 reporting hospitals, 62 percent were on schedule and another 3 percent had completed all of their grant objectives. The objectives the grantees were most likely to have completed were staff recruitment, service coordination, and outpatient services. However, outpatient services and recruitment projects were also among the projects most likely to be behind schedule by at least a month. Others that were most often behind schedule were transportation and inpatient services projects. During the first three months, the average grantee spent $4,214 of its grant funds, mostly on salaries and fringe benefits.

1996 GRANTEE SOLICITATION

In 1996, 270 hospitals in 43 states applied for RHCT grants. The number of applicants is the lowest since the grant program began. HCFA awarded 110 grants, an increase over last year's program low of 61 grants. As in previous years, HCFA selected grantees on the basis of merit and a desire to create regional balance in the program. HCFA awarded first-year funding of $4,520,834 for the first year to 109 grant recipients; an average award of $41,476. One grantee will not be receiving RHCT grant funds in 1996 because it is currently receiving RHCT funds through an earlier grant. Again, as in previous years, the largest proportion (53 percent) of the grantees are from the Midwest region, reflecting high application rates from this area. Forty-one percent of the 1995 grantees received funding for consortia projects with hospitals, which is higher than the proportion in previous years.

I. INTRODUCTION

This is a progress report for the ongoing evaluation of the grantees in the 1994 through 1996 Rural Health Care Transition (RHCT) grants program. In this chapter, we summarize the legislation that authorized the RHCT grants program and update the number and national distribution of grantees that have ever participated in it. Chapters II and III describe the progress of the 1994 and 1995 grantees, respectively. Chapter IV describes the application and award process for 1996 grantees and the distribution of the applications and awards across states. Chapter V compares the 1995 grantees' characteristics and their service areas with those of the 1989 and 1990 grantees. Chapter VI describes the differences between grantees that had previously received an RHCT grant and those that had not, to assess the impact the RHCT grants program may have had on rural hospitals. Chapter VII presents findings from telephone interviews with a sample of 1994 grantees that implemented new services.

A. LEGISLATIVE HISTORY AND PURPOSE OF THE GRANTS PROGRAM

In 1987, Congress mandated the RHCT grants program to help small rural hospitals address changes in their environment and improve their financial and managerial strength. The legislation authorized the Health Care Financing Administration (HCFA) to:

> Establish a program of grants to assist eligible small rural hospitals and their communities in the planning and implementation of projects to modify the type and extent of services such hospitals provide in order to adjust for one or more of the following factors:

> (A) Changes in clinical practice patterns
>
> (B) Changes in service populations
>
> (C) Declining demand for acute-care inpatient hospital capacity
>
> (D) Declining ability to provide appropriate staffing for inpatient hospitals
>
> (E) Increasing demand for ambulatory and emergency services
>
> (F) Increasing demand for appropriate integration of community health services
>
> (G) The need for adequate access to emergency care and inpatient care in areas in which a number of underutilized hospital beds are being eliminated . . .
>
> Each demonstration project . . . shall demonstrate methods of strengthening the financial and managerial capability of the hospitals involved to provide necessary services.[1]

In addition, the legislation required that the HCFA administrator report to Congress on program progress annually.[2]

The legislation also described eligibility criteria and limitations on the use of grant funds. The legislation stipulated that "a grant may not exceed $50,000 a year and may not exceed a term of two years."[3] Funds could be spent for any expense incurred in planning and implementing a project, with two exceptions: (1) no part of the grant funds could be used to retire debt incurred before the grant award, and (2) no more than one-third of the grant funds could be used to cover capital-related costs. To be eligible for a grant, a hospital had to be a non-Federal, nonprofit, short-term, general acute-care hospital with fewer than 100 beds and had to be classified as a rural hospital under Medicare's prospective payment system.[4]

---

[1] Omnibus Budget Reconciliation Act of 1987 (OBRA '87) (Public Law 100-203, Section 4005(e)(1)).

[2] This progress report was prepared by Mathematica Policy Research, Inc., under contracts 500-94-0011 and 500-95-0032 to HCFA.

[3] Section 4005(e)(6) of OBRA '87.

In 1989, Congress modified the RHCT grants program.[5] First, the grant period for hospitals receiving an award after fiscal year 1989 was extended from 2 to 3 years. Second, the one-third capital expenditure maximum was lifted for hospitals that use their grants to convert to rural primary care hospitals (as described in Section 1820 of the Social Security Act [SSA]) or to develop rural health networks (as defined in Section 1820(g) of the SSA).

Congress has appropriated a total of $148.7 million for the program. The amount of funds appropriated by Congress has varied over the 8 years:

Fiscal Year	Amount	Cumulative
1989	$8.3 million	$8.3 million
1990	$17.8 million	$26.1 million
1991	$24.4 million	$50.5 million
1992	$23.0 million	$73.5 million
1993	$22.8 million	$96.3 million
1994	$21.1 million	$117.4 million
1995	$17.5 million	$134.9 million
1996	$13.1 million	$148.0 million

---

[4] Section 4005(e)(2) of the OBRA '87.

[5] Omnibus Budget Reconciliation Act of 1989 (Public Law 101-239, Section 6003(g)(1)(B)).

These funds increased from 1989 through 1991, consistent with increases in the number of active grantees each year. Since 1991, the funding level has slowly ebbed, at least partly as a result of budget-cutting measures taken by Congress. HCFA has responded to the reduction in funding by reducing the number of grantees, not the size of the grants. This year, the 104th Congress decided not to appropriate funds for the RHCT grants program in the 1997 fiscal year budget.

B. NUMBER AND DISTRIBUTION OF GRANTEES

HCFA uses two criteria to select RHCT grant recipients: (1) the equitable distribution of funds across states, and (2) reviewers' assessment of the merits of projects. HCFA distributes the funds across states in proportion to the number of eligible hospitals.[6] Awards are then made within each state on the basis of merit. The remaining funds are awarded on the basis of merit without regard to state. Under these criteria, 932 hospitals (48 percent of eligible rural hospitals) participated in the RHCT grants program between 1989 and 1996. Figure I.1 shows the state-by-state distribution of the number and percentage of hospitals receiving RHCT grants between 1989 and 1996.

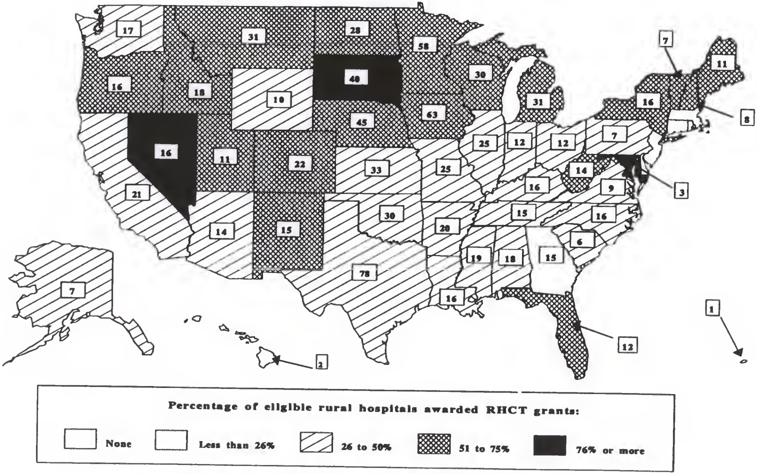
On one hand, because the funds are distributed equitably across states, the *number* of grantees in a state corresponds roughly to the state's portion of the eligible hospitals nationwide. As Figure I.1 shows, Texas has the largest number of hospitals awarded RHCT grants (78), followed by Iowa (63), and Minnesota (58). (Texas ranks first, Minnesota ranks third, and Iowa ranks fourth in number of eligible hospitals.)

---

[6] According to HCFA, 1,961 rural hospitals were eligible nationwide.

FIGURE I.1

NUMBER AND PERCENTAGE OF ELIGIBLE HOSPITALS AWARDED RURAL HEALTH CARE TRANSITION (RHCT) GRANTS BETWEEN 1989 AND 1996, BY STATE



NOTE: The number of hospitals with RHCT grants is shown on the map. A total of 932 hospitals received RHCT grants between 1989 and 1996. The percentages are based on number of eligible hospitals in the state in 1996. Connecticut, New Jersey, and Rhode Island did not have eligible hospitals in 1989 to 1996. A 1991 grantee in Connecticut was reclassified as an urban hospital and excluded from tabulations.

On the other hand, the *percentage* of grantees within a particular state may reflect a more organized effort to pursue grants. States with a higher percentage of grants are winning more of the remaining merit funds. The number and quality of grant applications affect the percentage of winners in each state. An analysis of the percentage of eligible hospitals ever having received a grant in each state shows that states in which more than half of the eligible hospitals participated in the grant program generally are clustered in three areas of the country: (1) New England, (2) the northern plains, and (3) the Mountain region. By contrast, states with the lowest program participation rates are located in the South.

II. SELF-REPORTED PROGRESS OF 1994 GRANTEES

This chapter summarizes the 1994 grantees' progress during the 4th through 18th months of their grants. Specifically, it draws on grantee-reported data collected on the second monitoring form that covered the period January 1, 1995, through March 31, 1996. In the following sections, we examine grantees' status in the program, project objectives, project modifications, progress in accomplishing project objectives, and expenditures.

A. STATUS OF 1994 GRANTEES

The Health Care Financing Administration (HCFA) awarded 3-year Rural Health Care Transition (RHCT) grants to 129 hospitals in October, 1994; 127 of these hospitals were still active in the program at the end of 18 months (Table II.1). HCFA rescinded the grant award of one grantee because the grantee also had a fully funded 1993 RHCT grant. Another hospital discontinued its grant within the 18-month period. By the end of the 18-month period, 15 grantees had modified their grant projects. The rest of this chapter reports the progress of the 127 grantees that returned the second monitoring forms.

B. CHARACTERISTICS OF GRANTEE PROJECTS

1. Project Objectives

With two notable exceptions, the relative popularity of most grantee objectives remained the same after 18 months as after 3 months, despite grantees reporting *more* objectives after

TABLE II.1

1994 GRANTEE STATUS

	Status at Grant Award (10/1/94)	First Reporting Period (10/1/94 to 12/31/94)	Second Reporting Period (1/1/95 to 3/31/96)	Cumulative (10/1/94 to 3/31/96)
Changes During the Period				
Discontinued Grant	0	1[a]	1[b]	2
Hospital Closed	0	0	0	0
Total	0	1	1	2
Status at End of Period				
Active	129	128	127	127
Retained original scope	129	118	122	112
Modified scope	0	10[c]	5[d]	15

[a] HCFA rescinded the grant for one grantee, Vaughn Perry Hospital in Alabama, because it receives full funding from a 1993 RHCT grant.

[b] Margaretville Memorial Hospital, New York

[c] Beaver Valley Hospital, Utah
California Modoc Medical Center, California
DeBaca General Hospital, New Mexico
Indian Valley Hospital District, California
Jackson Municipal Hospital, Minnesota
Myers Memorial Hospital District, California
Surprise Valley Hospital District, California
Valdez Community Hospital, Alaska
Van Buren County Hospital, Iowa
West Feliciana Parish Hospital, Louisiana

[d] Perry County Memorial Hospital, Indiana
Bingham Memorial Hospital, Idaho
Hill County Memorial Hospital, Texas
Saint Elizabeth's Hospital, Minnesota
Door County Memorial Hospital, Wisconsin

18 months than after 3 months (Bergeron et al. 1996) (Table II.2). Two objectives markedly decreased in popularity: (1) the number of grantees seeking to coordinate with other providers dropped from 49 at 3 months to 26 at 18 months, and (2) the number of grantees planning construction or renovation dropped from 33 at 3 months to 21 at 18 months. After 3 months, coordinating with other providers was the fourth most popular grantee objective, but it dropped to seventh most popular after 18 months. Reporting error in the first report (as well as grantees' discontinuing the objective) accounts for the changes. Aside from these exceptions, expansion of outpatient services continued to be 1994 grantees' most popular objective: 80 grantees (63 percent) reported intending to expand services after 18 months, whereas 73 grantees (57 percent) reported this objective after 3 months. Similarly, 1 to 3 percent more grantees reported pursuing each of the five most popular objectives (with the exception of coordinating with other providers).

2. Reported Changes in Objectives

In summarizing changes in objectives, we looked at changes in three major goals: (1) modifying hospital facilities, (2) improvements in management, and (3) coordinating with other providers. We identified only five grantees during the reporting period that had apparently changed one of these objectives between 3 months and 18 months of award, although some of the changes may reflect inconsistent reporting, rather than true changes (see Table II.1). The changes that we identified are as follows:

TABLE II.2

PROJECT PROGRESS AFTER 18 MONTHS, BY OBJECTIVE (1994 GRANTEES)

		Percentage of Grantees that Reported:			
Project Objective	Number of Grantees Pursuing Objective	Completing Objective	Ahead of Schedule for Objective	On Schedule for Objective	Behind Schedule by More than 1 Month for Objective
Expand Outpatient Services	80	26	3	35	36
Recruit Providers	55	30	2	50	19
Improve Management	51	42	0	44	14
Training or Staff Development	47	15	0	85	0
Implement Prevention Services	43	12	0	72	16
Implement Community Care Services	29	25	4	54	18
Coordinate with Other Providers[c]	26	27	0	69	4
Implement Social Services	25	13	8	54	25
Provide Transportation	22	32	0	41	27
Expand Inpatient Services	22	14	0	52	33
Construction or Renovation	21	48	0	24	29
Expand Diagnostic Services	19	42	0	53	5
Implement Other Patient Services	2	50	0	50	0
Convert Facility	1	100	0	0	0
Reported Progress on All Grantee Objectives[a]	**125[b]**	**10**	**0**	**48**	**42**

SOURCE: Second Grantee Monitoring Report, 1994 grantees.

NOTES: Percentages may not total 100 because of rounding error. Only grantees that were still active at the end of 18 months and that submitted grant progress reports are included. Grantees may choose to pursue more than one objective. As a result, the sum of grantees pursuing individual objectives does not equal the number of total grantees.

[a] Progress is defined by the project's activity that is delayed the most. For example, a project that is on schedule in only one activity and ahead of schedule in all the rest is defined to be on schedule.

[b] Two of the 127 active grantees did not report project progress. Therefore, the overall progress percentages are based on 125 grantees.

[c] This objective includes hospital consortia, as well as formal and informal networks.

- Two grantees, in Texas and Minnesota, added the goal of modifying the hospital to their original goal of a community health or needs assessment. Another grantee in Wisconsin added the goal of modifying the hospital to its original goal of creating a medical services organization.
- One grantee in Indiana added the goal of management improvements to its original goal of implementing a Rural Health Clinic (RHC).
- One grantee in Idaho added the goal of coordination with other providers to its original goal of providing transportation to the elderly.

C. PROGRESS OF 1994 GRANTEES

Some grantees made progress on their projects during the past 15 months, but fewer were on or ahead of schedule, and more were behind schedule, than at 3 months (Table II.2). Ten percent completed all their objectives at 18 months, compared with 5 percent at 3 months. However, only 48 percent were on or ahead of schedule after 18 months, as opposed to 58 percent after 3 months. A larger proportion (42 percent) of 1994 grantees reported being behind schedule by more than 1 month on at least one objective, compared to 15 months earlier (35 percent).

A larger proportion of 1994 grantees (13 grantees or 10 percent) had implemented all their objectives after 18 months than had earlier cohorts. None of the 1989 grantees, and between 2 percent and 6 percent of 1990, 1991, 1992, and 1993 grantees, had completed all of their objectives between 15 and 21 months of the award (Cheh et al. July 1991; Cheh et al. 1992; Cheh et al. October 1993; Bergeron et al. 1995; and Bergeron et al. 1996).

The achievements of the 13 grantees completing projects at 18 months varied. Management or staffing improvements included: staff development activities (one grantee), performing telemedicine activities for continuing medical education (one grantee), recruiting physicians (two grantees), recruiting midlevel practitioners (three grantees), and recruiting other staff (three grantees). Two of the grantees that recruited staff used consortium or network affiliations to assist with recruiting. The patient services that were completed included: RHCs or primary care clinic (five grantees), nonemergency transportation (two grantees), cardiac rehabilitation (one grantee), health education (one grantee), a 12-bed skilled nursing facility (SNF) (one grantee), and a home health agency (one grantee).

In addition to the 13 grantees completing all project objectives, 72 grantees (57 percent) had completed at least one objective (not shown in table).[1] Patient services that were implemented included outpatient services (20 grantees), prevention services (5 grantees), community care services (7 grantees), social services (3 grantees), inpatient services (3 grantees), expanded diagnostic services (8 grantees), and other patient services (1 grantee). The management and staffing improvements that were implemented include management improvement (21 grantees), provider recruitment (16 grantees), and staff development or training (7 grantees). Other completed objectives included construction or renovation (10 grantees), coordination with other providers (7 grantees), provision of transportation (7 grantees), and converting the facility (1 grantee).[2]

---

[1] The total of grantees completing at least one of their objectives is 85 (67 percent), the sum of the 13 grantees completing all of their objectives and the 72 grantees completing at least one objective.

[2] Grantees could choose to pursue more than one objective. As a result, the number of grantees completing individual objectives does not equal the number of grantees (72) completing at least one objective.

Overall, 42 percent of grantees (52 grantees) were behind schedule on at least one of their objectives. Grantees seeking to expand outpatient services had the greatest number of implementation delays; 36 percent (29 grantees) reported being behind schedule for this objective. In addition, grantees reported delays in expanding inpatient services (33 percent), construction or renovation (29 percent), and providing transportation (27 percent).

Five grantees (four percent) experienced delays on all grant objectives (not shown in table). Three of them reported lack of funds as a problem. Other reported difficulties include regulatory constraints, lack of personnel, problems with recruiting or retention, lack of community or physician support, lack of organizational coordination, and administrative or operational difficulties. All five grantees reported more than one implementation problem.

Grantees reported a variety of factors that affected how successfully or unsuccessfully they implemented their grant projects. Factors facilitating overall project success at 18 months included availability of funds (69 grantees), cross-organizational support (51 grantees), dedicated and experienced personnel (36 grantees), and community support (32 grantees). Overall, problems that impeded grantees from implementing grant projects included difficulties with recruiting and retention (28 grantees), problems with administration and operations (23 grantees), lack of cross-organizational coordination (21 grantees), and lack of funding (20 grantees).

D. GRANT EXPENDITURES

Grantees' expenditures for the first 18 months of the grant was less than their 2-year budgets. HCFA awarded a total of $10,689,925 to the 1994 grantees during the first 2 years--$5,560,859 for the first year and $5,129,066 for the second year--for an average of $84,173 per grantee over 2 years.[3] At 18 months (three-fourths of the way through their 2-year schedule), we expected on-schedule grantees to have spent about 75 percent of their 2-year budget. However, the 1994 grantees had spent only 59 percent ($6,292,636) of their 2-year budget--an average of $49,548 per grantee.

The 1994 cohort spent about the same proportion of its 2-year funds at 18 months as the 1989 and 1990 cohorts, but a substantially smaller proportion than the 1993 grantees (Cheh et al. July 1991; Cheh et al. 1992; and Bergeron et al. 1996). The 1989 and 1990 grantees spent 61 and 58 percent, respectively, of their 2-year funding within 18 months, while the 1993 grantees spent 70 percent. (The 1991 and 1992 cohorts reported expenditures for a 21-month period; at that interval those cohorts reported spending 78 percent and 83 percent, respectively, of their 2-year awards.)

Similar to previous cohorts, grantees spent the highest proportion of grant funds on salaries and fringe benefits (50 percent) (Cheh et al. July 1991; Cheh et al. 1992; and Bergeron et al. 1996). Overall, during the first 18 months of the grant, 23 percent of grantee expenditures were to purchase capital equipment. Six grantees reported spending more than one-third of their 3-year budget on capital; HCFA has been notified of these grantees.[4] Cumulative expenditures, by category, after the first 18 months of the grant period were:

---

[3] Nine grantees reported expenditures that exceeded their total grant award. We suspect that these grantees reported total costs, rather than grant-funded costs. For these grantees, we decreased the total expenditures to equal the total grant award and adjusted expenditures, by category, in proportion to that reduction. In addition, one grantee failed to submit an expenditure form. As a result, these expenditure figures may be slightly underestimated.

- Salaries and fringe benefits: $3,164,660 (50 percent)
- Equipment and capital: $1,463,064 (23 percent)
- Nonphysician contracts: $756,188 (12 percent)
- Physician contracts: $397,905 (6 percent)
- Travel: $272,066 (4 percent)
- Supplies: $226,60 (4 percent)
- Other: $12,142 (1 percent)

As mentioned earlier, grantees on schedule should have spent approximately three-fourths of their 2-year budget at 18 months. By this measure, most grantees were not on schedule. Less than half of grantees (46 percent) reported spending more than half of their 2-year awards. Surprisingly, 6 of the 12 grantees spending more than their total 2-year budgets reported being behind on at least one grant activity.[5]

A variety of reasons accounted for grantees' delays and low spending. Of the 23 grantees spending less than 25 percent of their 2-year grant award, 10 were behind on one or more objectives. Fifteen of the 23 reported delays or problems, such as recruiting or retention problems

---

[4] See OBRA '87, Section 4005(e)(7)(c) for the grant restriction on capital spending.

[5] Grantees that reported spending more than their 2-year award may have reported spending funds other than RHCT grant funds or may have reported spending fundings from year 3 of their award.

(8 grantees), regulatory constraints (4 grantees), lack of funding (3 grantees), lack of organizational coordination (3 grantees), lack of physician support (3 grantees), and administrative or operational difficulties (3 grantees).

III. SELF-REPORTED PROGRESS OF 1995 GRANTEES

This chapter summarizes the 1995 grantees' progress during the first 3 months of their grants. Specifically, it draws on grantee-reported data collected on the first monitoring form that covered the period October 1, 1995, through December 31, 1995. In the following sections, we examine grantees' status in the program, project objectives, project modifications, progress in accomplishing project objectives, and expenditures.

A. STATUS OF 1995 GRANTEES

The Health Care Financing Administration (HCFA) awarded Rural Health Care Transition (RHCT) grants to 61 hospitals in October 1995 (Table III.1). Most of the grantees requested 3 years of funding, from October 1, 1995, to September 30, 1998. During the reporting period, one hospital dropped out of a consortium project because it became a for-profit hospital and was ineligible to receive RHCT grants funds. At the end of the third month, 60 grantees remained active in the program.[1]

---

[1] Three hospitals have since left the grant program. In January 1996, one grantee merged with another grantee and indicated it would not be seeking continuance of funding beyond the first year. In April 1996, a grantee voluntarily withdrew from its consortium's project after concluding that project costs outweighed the benefits. Finally, HCFA decided not to fund the second year of a nonreporting grantee.

TABLE III.1

1995 GRANTEE STATUS

	Status at Grant Award (10/1/95)	First Reporting Period (10/1/95 to 12/31/95)	Cumulative (10/1/95 to 12/31/95)
Changes During the Period			
Discontinued Grant	0	1[a]	1
Hospital Closed	0	0	0
Total	0	1	1
Status at End of Period			
Active	61	60	60
Retained Original Scope	61	55	55
Modified Scope	0	5[b]	5[b]

[a] Doctors Memorial Hospital, Florida, has withdrawn from the grant program.

[b] Humphreys County Memorial Hospital, Mississippi
Oconto Memorial Hospital, Wisconsin
Bay Area Medical Center, Wisconsin
Castaner General Hospital, Puerto Rico
Northwest Florida Community Hospital, Florida

B. CHARACTERISTICS OF GRANTEE PROJECTS

1. Grantee Objectives

Although the four most popular project objectives are the same as those pursued by the 1994 grantees 3 months into their projects, the emphasis shifted. The 1994 grantees emphasized outpatient services and physician recruitment; this year's cohort is more interested in management improvements and coordination with other service providers (objectives that were ranked third and fourth among the 1994 grantees). (See Table III.2.) Thirty-six of the reporting 58 grantees (62 percent) have management improvements (primarily needs assessment, strategic planning, and marketing) as an objective. Another 33 grantees (57 percent) were interested in coordinating and consolidating services with other providers (43 percent to develop rural health networks, not shown in table) or to coordinate services with other providers (38 percent).[2] About a third (35 percent) were working on consortia projects with other hospitals.

The proportion of 1995 grantees pursuing management improvement and service coordination objectives increased over earlier RHCT cohorts. Among the 1994 grantees, the proportion pursuing management improvement and service coordination objectives were 40 and 39 percent at startup, respectively. Pressure from public and private third-party payers' efforts to restrain costs has encouraged hospitals to make improvements in management and service coordination (Shortell et al. 1995). The growth of prospective payment as the favored payment

---

[2] Since grantees may be pursuing more than one activity within each objective, the percentages for the activities may be greater than 100 percent.

TABLE III.2

PROJECT PROGRESS AFTER 3 MONTHS, BY OBJECTIVE (1995 GRANTEES)

		Percentage of Grantees that Reported			
Project Objective	Number of Grantees Pursuing Objective	Completing Objective	Ahead of Schedule for Objective	On Schedule for Objective	Behind Schedule by More than 1 Month for Objective
Improve Management[a]	36	3	0	77	21
Coordinate with Other Providers[b]	33	15	0	70	15
Expand Outpatient Services	29	10	0	55	35
Recruit Providers[c]	21	15	0	60	25
Implement Prevention Services	20	0	0	90	10
Training or Staff Development	16	0	0	94	6
Implement Social Services	10	0	0	90	10
Provide Transportation	9	0	0	33	67
Implement Community Care Services	8	13	0	75	13
Construction or Renovation	8	0	13	63	25
Expand Inpatient Services	6	0	0	67	33
Expand Diagnostic Services	3	0	0	100	0
Convert Facility	0	NA	NA	NA	NA
Implement Other Patient Services	0	NA	NA	NA	NA
Overall Grantee Progress[d]	**58**	**3[e]**	**0[f]**	**62[g]**	**35[h]**

SOURCE: First Grantee Monitoring Report, 1995 grantees.

NOTES: Percentages may not total 100 because of rounding error. Only grantees that were still active at the end of 3 months and that submitted grant progress reports are included. Progress is defined by the project's activity that is delayed the most. For example, a project that is on schedule in only one activity and ahead of schedule in all the rest is defined to be on schedule. Grantees may choose to pursue more than one objective. Therefore, the sum of grantees pursuing individual objectives does not equal the number of total grantees.

[a] Two of the 36 grantees with management improvement projects did not report progress.

[b] This objective includes hospital consortia, as well as formal and informal networks.

[c] One of the 21 grantees with recruitment projects did not report progress.

[d] Two of the 60 active grantees who returned their progress forms did not indicate their progress on all their activities. The overall progress for these two grantees is based on their progress on their reported activities.

[e] Percentage completing all grant objectives.

[f] Percentage that reported being at least ahead of schedule for all grant objectives.

[g] Percentage that reported being at least on schedule for all grant objectives.

[h] Percentage that reported being behind schedule by more than 1 month for one or more objectives.

method and the choice of managed care as the favored delivery system have changed incentives and encouraged changes in management structure. A recent nonrepresentative survey of rural hospital administrators found that more than half of them believed links with physicians, another hospital, or a hospital system were essential for their hospital's survival (Hudson 1995). More than three-quarters of the respondents indicated the value of such links was increased opportunities and capabilities to access managed care plans.

Expanding outpatient services and recruiting providers, the top two objectives among the 1994 grantees, were the third and fourth most frequently pursued objectives among the 1995 cohorts. Half (29 grantees) of the 1995 grantees were seeking to expand their outpatient services, and a third (21 grantees) were recruiting providers. To some degree, these two objectives are related since new outpatient services often require additional providers.

Several factors may have contributed to the popularity of outpatient service projects. One factor is the use of a prospective payment system for Medicare inpatient services. Implemented during the 1980s, the Medicare prospective payment system sets fixed payments for inpatient services. In response, hospitals nationwide have diversified into outpatient services where the payment method varies but is predominantly cost-based. Another factor is the advancement in medical technology. Less invasive methods for treating patients enable physicians to deliver more services on an outpatient basis. A third factor may be the increasing availability of specialists in urban communities who are establishing visiting practices in rural communities to supplement their primary practice.

2. Reported Changes in Objectives

Part of our monitoring process involves identifying project modifications. In summarizing changes in objectives, we looked at changes in the three major goals: (1) improving patient services, (2) improving management or staffing, and (3) modifying hospital facilities.

We identified four grantees with an apparent change in one of these objectives; they are listed here:[3]

1. One grantee in Mississippi originally proposed to develop its primary care emergency room service, to recruit nurse practitioners, and to convert acute-care beds to subacute-care beds. It now proposes to develop a network of different provider types that will serve as a foundation for a Medicare managed care product and to explore the feasibility of establishing a management service bureau and various telemedicine applications.

2. A two-hospital Wisconsin consortium dropped its plans for reducing the number of acute-care beds and other consolidation efforts when its review indicated that the uniqueness of the hospitals' service areas precluded these actions. The hospitals are continuing their effort to fill service gaps by adding services and recruiting providers.

3. One grantee in Puerto Rico has accomplished its goal of recruiting a urologist and a nursing assistant more quickly than expected. It reported that a needs assessment has been added to its project.

4. One grantee in Florida is adding patient services to its original proposed goal to develop a rural health network.

---

[3] We identified modifications from two sources: (1) narrative responses to a question on the monitoring form about grant project changes, and (2) responses to a question on the project progress form about objectives that were added to or dropped from the project after the proposal was submitted to HCFA.

C. PROGRESS OF 1995 GRANTEES

Three months after grant award, most of the 1995 grantees were at least on schedule with all their project objectives. Thirty-six out of the 58 1995 grantees (62 percent) were at least on schedule with all of their project objectives, and 2 grantees (3 percent) reported they had implemented all their objectives (see Table III.2).[4] Eighteen (31 percent) of the 1995 grantees had completed at least one of their objectives (not shown in table).

The four most frequently pursued objectives were also those most frequently mentioned to have been completed after 3 months. Fifteen percent of the grantees who were recruiting providers (3 out of 20 reporting grantees) or coordinating with other providers (5 out of 33 grantees) had completed their objectives at the end of 3 months. (These objectives were also the ones most likely to have been completed by the 1994 grantees 3 months into their projects.) Three out of the 29 grantees (10 percent) expanding their outpatient services had achieved their objective. Finally, 1 out of 34 grantees (3 percent) with management improvement objectives reported having completed its objective at the end of 3 months. The only other objective completed 3 months into the grant was establishing community care services (1 out of 8 grantees, or 13 percent).

The grantees cited factors that contributed to the overall success of their grant project. At least half of the grantees indicated that the availability of funds (52 percent) and support from other organizations (50 percent) contributed to their success. In addition, dedicated and experienced personnel (40 percent) and having projects that meet a need (34 percent) contributed to the success of the grantees' project.

---

[4] This is similar to the progress reported by the 1994 grantees: nearly two out of three grantees were at least on schedule with all their projects after 3 months, and 5 percent had completed all of their projects.

The 1995 grantees are having difficulties implementing several types of projects. Two-thirds of the nine grantees pursuing transportation projects were behind schedule by at least 1 month. About a third of the 29 grantees expanding outpatient services, about a third of the 6 expanding inpatient services, a quarter of the 20 reporting grantees recruiting providers, and a quarter of the 8 pursuing construction or renovation projects were all behind schedule.

Two frequently mentioned factors that impeded implementation of grant projects and put grantees at least a month behind schedule on at least one of their activities were administrative and operational difficulties (28 percent) and the lack of personnel (21 percent). These were also the two problems the 1994 grantees cited most frequently. Fifty-eight percent of the grantees citing a lack of personnel were behind schedule on *all* of their activities, compared to 28 percent among the grantees that did not cite this problem. Similarly, 50 percent of the grantees that mentioned administrative and operational difficulties were behind schedule, compared to 33 percent of the grantees who did not mention it as a problem.[5]

The three most common strategies being pursued to address project problems were reorganizing staff or resources (50 percent), increasing the frequency of meeting or education activities on the grant project (36 percent), and hiring staff (25 percent). These were also the most common strategies the 1994 grantees employed.

---

[5] There were other difficulties associated with being behind schedule; however, their numbers were too small to be considered to be reliable.

D. GRANT EXPENDITURES

Grantees' expenditures for the first 3 months of the grant were consistent with their reported progress on projects. Furthermore, overall spending remained well within the one-third limit on capital expenditures.[6] HCFA awarded a total of $2,665,309 to the 58 reporting grantees for the first year of their grants--an average of $45,954 per grantee. Three months after the award, the 58 reporting grantees had spent approximately nine percent ($244,416) of first-year funds, an average of $4,214 per grantee.[7] Average grant expenditures were similar to those of the 1991, 1992, and 1994 cohorts (Cheh et al. 1992; Cheh et al. October 1993; and Bergeron et al. 1996).

As in previous years, 1995 grantees spent the highest proportion of grant funds on salaries and fringe benefits (61 percent) (Cheh et al. 1992; Cheh et al. October 1993; and Bergeron et al. 1996). The amount spent by the 1995 grantees on salaries and fringe benefits is much larger than the amount spent by the 1994 grantees at the end of 3 months; the 1994 grantees spent slightly more than 40 percent on salary and benefits. The higher salary and fringe benefit expenses may be attributed to the types of projects pursued by the 1995 grantees. Projects that pursue management improvement and service coordination are likely to be more labor intensive than some of the other projects.

---

[6] See OBRA '87, Section 4005(e)(7)(c).

[7] One grantee did not report expenditures.

Expenditures, by category, for the first 3 months of the grant were:

Expenditures	Dollars	Percentage
Salaries and Fringe Benefits	148,538	61
Equipment and Capital	55,637	23
Nonphysician Contracts	14,059	6
Other	13,342	5
Supplies	8,583	4
Travel	3,485	1
Physician Contracts	772	<1

Over a third (36 percent) of 1995 grantees spent no grant funds during the first 3 months of the grant period. However, expending grant funds did not seem to affect the hospitals' progress on their grant projects. Twenty-five of the 37 grantees (68 percent) that spent RHCT grant funds in the first 3 months and 21 grantees (62 percent) that did not spend grant funds in the first 3 months had projects that were on schedule or completed.

IV. 1996 GRANT SOLICITATION PROCESS AND APPLICANT CHARACTERISTICS

A. SOLICITING AND SCORING THE APPLICATIONS AND SELECTING GRANTEES

The Health Care Financing Administration (HCFA) solicited applications for the 1996 Rural Health Care Transition (RHCT) grants program by sending letters and application forms to approximately 2,000 rural, nonprofit hospitals. As in previous years, an eligible hospital had to be a nonfederal, nonproprietary, short-term, general acute-care hospital with fewer than 100 beds. It also had to be classified as a rural hospital under Medicare's prospective payment system.[1] Hospitals that had received grants in 1994 or 1995 and that had accepted maximum grant funding for their continuation in 1996 were ineligible.[2] HCFA received applications from 270 hospitals; 160 submitted individual applications, and 110 applied in 20 consortia.

The application rate appeared to be higher among hospitals with previous grant awards. Of the 270 applications, 158 were from previous grant recipients.[3] Assuming that none of the grantees with existing RHCT grants were eligible to apply for new grants, the application rate of eligible previous grant winners was 22 percent (158 divided by 725) compared with 11 percent (112 divided by 1023) for those with no previous grant awards.

---

[1] Public Law 100-203, Section 4005(e).

[2] Because recipients of RHCT grants between 1989 and 1993 have completed their grant projects, they were eligible to apply for the 1996 grants program. Any 1994 or 1995 grantee that gave up grant funding or that received less than the maximum allowable amount also was eligible to apply for a 1996 grant.

[3] We identified the applicant's grant history by comparing the facility name and state of previous grant winners with the applicants. In those cases where more than one facility in the state had the same name, we assumed that the applicant had no previous RHCT grant award. Because of this, we may have undercounted the number of eligible hospitals with no previous grant award.

Technical panels reviewed and scored the applications according to the following five criteria mandated by Congress:

1. Understanding the problems facing the hospital
2. Likelihood of a successful impact resulting from the grant
3. Potential for improving access to care
4. Degree of community coordination demonstrated
5. Potential to reduce Medicare expenditures

The panels submitted scores to HCFA. The scores were normalized using standard statistical techniques to account for panel variation.[4] HCFA selected grant award winners using the process described in Chapter I.

HCFA awarded grants to 110 hospitals--65 grants to individual hospitals and 45 grants to hospitals in 20 consortia. Approximately $4.5 million was awarded to the 110 grantees for fiscal year 1996. The majority of the grants were $50,000 per year for 3 years. The largest grant awards were $150,000 allocated over 3 years; the smallest were $24,000 allocated over 3 years. Appendix A lists the 1996 grantees and their first-year grants, by state.

---

[4] See Appendix B for information about the score adjustment process.

Sixty-four of the 110 hospitals (58 percent) were previous recipients of RHCT grants. Being a previous grant winner did not appear to affect the applicants chance for being awarded a 1996 RHCT grant since the award rate for both previous grantees and new grantees was 41 percent. Eleven of these hospitals have existing RHCT grants; 10 received their grant awards in 1994 and 1 in 1995.

B. GEOGRAPHIC DISTRIBUTION OF APPLICANTS

HCFA received applications from 270 hospitals for the 1996 RHCT grants program (Table IV.1). Only 14 percent of eligible hospitals nationwide applied.[5] Applications came from hospitals in 43 of the 47 states with eligible hospitals.[6]

Application rates of eligible hospitals varied across census divisions. The Mid-Atlantic and West North Central census divisions had the highest application rates (24 and 23 percent, respectively). Less than 10 percent of the eligible hospitals applied for RHCT grants in four of the nine census divisions. The West South Central census division had the lowest rate (7 percent); the rates in the East North Central, Pacific, and South Atlantic census divisions were only slightly higher (around 9 percent).

Application rates varied across states as well. All eligible hospitals in three states--Delaware, Maryland, and Nevada--submitted applications for RHCT grants. These three states have

---

[5] HCFA supplied counts of eligible hospitals, by state. The total was 1,961 eligible hospitals (as shown in Table IV.1).

[6] This does not include Puerto Rico, which has three eligible hospitals, none of which applied for the grant.

TABLE IV.1

RURAL HEALTH CARE TRANSITION GRANTS PROGRAM: 1996 ELIGIBLE HOSPITALS, PROPOSALS RECEIVED, AND AWARDS

Census Division and State	Number of Eligible Rural Hospitals	Percentage of Eligible Hospitals Nationwide	Number of Proposals Received	Number of Hospitals that Applied	Percentage of Eligible Hospitals that Applied	Number of Hospitals with Awards	Percentage of Eligible Hospitals Awarded Grants	First-Year Funding Level (Dollars)
New England								
Maine	17	0.87	2	2	11.76	2	11.76	100,000
Massachusetts	2	0.10	0	0	0.00	0	0.00	
New Hampshire	11	0.56	2	2	18.18	2	18.18	100,000
Vermont	10	0.51	1	1	10.00	0	0.00	
Total	40	2.04	5	5	12.50	4	10.00	200,000
Middle Atlantic								
Delaware	1	0.05	1	1	100.00	0	0 00	
New York	30	1.53	8	10	33.33	5	16.67	199,938
Pennsylvania	15	0.76	1	1	6.67	0	0.00	
Puerto Rico	3	0.15	0	0	0.00	0	0.00	
Total	49	2.50	10	12	24.49	5	10.20	199,938
South Atlantic								
Florida	23	1.17	1	1	4.35	1	4.35	50,000
Georgia	75	3.82	6	6	8.00	0	0.00	
Maryland	3	0.15	3	3	100.00	1	33.33	50,000
North Carolina	42	2.14	5	6	14.29	1	2.38	50,000
South Carolina	18	0.92	0	0	0.00	0	0.00	
Virginia	22	1.12	1	1	4.55	1	4.55	50,000
West Virginia	26	1.33	3	3	11.54	2	7.69	100,000
Total	209	10.66	19	20	9.57	6	2.87	300,000
East South Central								
Alabama	45	2.29	3	11	24.44	0	0.00	
Kentucky	49	2.50	4	5	10.20	2	4.08	100,000
Mississippi	68	3.47	5	12	17.65	0	0.00	
Tennessee	49	2.50	2	2	4.08	1	2.04	50,000
Total	211	10.76	14	30	14.22	3	1.42	150,000
West South Central								
Arkansas	47	2.40	1	1	2.13	1	2.13	50,000
Louisiana	56	2.86	10	10	17.86	5	8.93	250,000
Oklahoma	69	3.52	3	3	4.35	1	1.45	50,000
Texas	177	9.03	9	9	5.08	4	2.26	200,000
Total	349	17.80	23	23	6.59	11	3.15	550,000

TABLE IV.1 (continued)

Census Division and State	Number of Eligible Rural Hospitals	Percentage of Eligible Hospitals Nationwide	Number of Proposals Received	Number of Hospitals that Applied	Percentage of Eligible Hospitals that Applied	Number of Hospitals with Awards	Percentage of Eligible Hospitals Awarded Grants	First-Year Funding Level (Dollars)
West North Central								
Iowa	91	4.64	12	31	34.07	16	17.58	398,000
Kansas	102	5.20	6	6	5.88	0	0.00	
Minnesota	95	4.84	14	16	16.84	8	8.42	385,398
Missouri	53	2.70	1	1	1.89	0	0.00	
Nebraska	74	3.77	10	20	27.03	16	21.62	369,300
North Dakota	40	2.04	5	10	25.00	4	10.00	199,460
South Dakota	49	2.50	8	30	61.22	9	18.37	449,940
Total	504	25.70	56	114	22.62	53	10.52	1,802,098
East North Central								
Illinois	57	2.91	6	6	10.53	2	3.51	82,836
Indiana	31	1.58	3	3	9.68	3	9.68	150,000
Michigan	56	2.86	3	3	5.36	1	1.79	50,000
Ohio	32	1.63	2	2	6.25	1	3.13	50,000
Wisconsin	57	2.91	4	6	10.53	2	3.51	100,000
Total	233	11.88	18	20	8.58	9	3.86	432,836
Mountain								
Arizona	28	1.43	4	4	14.29	2	7.14	100,000
Colorado	41	2.09	5	5	12.20	2	4.88	100,000
Idaho	34	1.73	1	1	2.94	1	2.94	50,000
Montana	47	2.40	4	5	10.64	4	8.51	198,120
Nevada	11	0.56	2	11	100.00	1	9.09	42,370
New Mexico	26	1.33	0	0	0.00	0	0.00	
Utah	19	0.97	2	2	10.53	1	5.26	18,000
Wyoming	20	1.02	4	5	25.00	2	10.00	77,472
Total	226	11.52	22	33	14.60	13	5.75	585.962
Pacific								
Alaska	18	0.92	2	2	11.11	1	5.56	50,000
California	47	2.40	3	3	6.38	2	4.26	100,000
Hawaii	8	0.41	0	0	0.00	0	0.00	
Oregon	29	1.48	2	2	6.90	1	3.45	50,000
Washington	38	1.94	6	6	15.79	2	5.26	100,000
Total	140	7.14	13	13	9.29	6	4.29	300,000
National Total	**1,961**	**100**	**180**	**270**	**13.77**	**110**	**5.61**	**4,520,834**

SOURCE: Friday Systems Services, Inc., 1996.

relatively small numbers of eligible hospitals; Delaware has 1 eligible hospital, Maryland has 3, and Nevada has 11. Other states with high application rates were South Dakota (34 percent of eligible hospitals), Iowa (34 percent), and New York (33 percent). On the other hand, none of the eligible hospitals in four states applied for RHCT grants. Like those with a 100 percent application rate, most of these states (Hawaii, Massachusetts, and Puerto Rico) have relatively few eligible hospitals. The exception to this was South Carolina, which has 18 eligible hospitals. About a half-dozen states had less than 5 percent of their eligible hospitals applying for RHCT grants. These states were Arkansas and Missouri (2 percent each) and Florida, Oklahoma, and Tennessee (4 percent each).

C. FEDERAL AND EXTERNAL FUNDING

1. Federal Funding

Most of the 270 hospitals that applied for the 1996 RHCT grants program requested 3 years of funding, and most of those awarded grants received 3-year grant funds. HCFA awarded a total of $4,520,834 for the first year to 109 grant recipients, an average of $41,476 per grant.[7] Two recipients received a 1-year grant and two others received 2-year grants. The anticipated totals for the second and third years of the grants are $4,477,490 ($41,450 per grant) and $4,356,341 ($40,713 per grant), respectively.[8]

---

[7] One grantee is scheduled to start receiving grant funds in the second year.

[8] Congress did not authorize funding for the RHCT grants program for fiscal year 1997.

2. External Funding

HCFA encouraged grant applicants to seek external funding to complement grant funds and asked hospitals to document in their applications any external funding they expected to receive for their projects. HCFA instructed grant review panels to consider external project funding as evidence of community coordination and to rank applicants with strong community coordination higher than others. Most of the applicants found other sources to support their proposed projects (see Table IV.2). In addition, the amount of the external funding seemed to have increased the likelihood of getting a grant award, since the median external funding for the funded hospitals was 45 percent more than the nonfunded hospitals. The broad definition of external funding, the various methods that hospitals use to quantify in-kind support, and the softness of funding commitments suggest caution in interpreting data provided by hospitals on this topic.

Typical sources of external funding that applicants reported were the hospital itself and the hospital auxiliary. Many hospitals indicated they intended to supplement grant funds with funds they already committed to the project or with funds that would be committed if they received a grant. Typically, nongrant monies were slated for equipment purchases needed for a project, because equipment costs often exceeded the one-third capital budget limit imposed by Congress on grant expenditures.

Some hospitals developed revenue projections and indicated project revenues would be used to fund future project costs. Other hospitals reported they expected project revenues to make up the difference between expected costs and the amount requested from the grants program.

TABLE IV.2

EXTERNAL FUNDING OF 1996 APPLICANTS

	Funded Hospitals	Unfunded Hospitals
Median Value of External Funding (Dollars)	129,083	89,237
Maximum Value of External Funding (Dollars)	4,220,647	4,623,150
Number of Hospitals with No External Funding	4	6
Total Number of Hospitals	**110**	**160**

SOURCE: Friday Systems Services, Inc., 1996.

Some hospitals developed revenue projections and indicated project revenues would be used to fund future project costs. Other hospitals reported they expected project revenues to make up the difference between expected costs and the amount requested from the grants program.

V. DO 1995 GRANTEES FACE THE SAME CHALLENGES AS THE 1989 AND 1990 GRANTEES?

As noted in Chapter I, the Rural Health Care Transition (RHCT) grants program was established to help small rural hospitals adjust to the transformations taking place in health care and health care delivery. The 1995 grantees are the seventh cohort to receive funding under the grants program. In this chapter, we compare the service areas and hospital characteristics of the 1995 grantees with those of the first two cohorts--the 1989 and 1990 grantees. In Section A, we compare the service areas of the cohorts based on data in the 1996 area resource file. We will then compare the cohorts based on data from their background information forms. From these comparisons, we hope to learn whether the challenges faced by the 1995 grantees are similar to the ones faced when the program was started.

A. SERVICE AREA PROFILES OF THE 1989, 1990, AND 1995 GRANTEES

This section describes the service areas of the 1989, 1990, and 1995 grantees based on data from the 1996 area resource file. When possible, we used data for the award year for each cohort; when data for the award year were not available, we used data for the year closest to the award year. The results are presented in Table V.1.

The service areas of the 1995 grantees are more sparsely populated and slightly poorer than those of the 1989 and 1990 grantees. In 1990, there were approximately 18 people per square mile in the 1995 grantees' service areas, compared to 26 and 22 people per square mile in the

TABLE V.1

AREA CHARACTERISTICS OF THE 1989, 1990, AND 1995 GRANTEES
(Medians, Except Where Noted Otherwise)

	1989 Grantees (N=181)	1990 Grantees (N=211)	1995 Grantees (N=57)
Demographic Characteristics			
Population Density per Square Mile, 1990	25.6	22.2	18.0
Population Age 65 Years and Over (Percentages)	15.7[a]	16.8[a]	16.0[b]
Population Black, 1990 (Percentages)	0.4	0.3	0.2
Annual per Capita Income (1987 Constant Dollars)	$12,312	$12,986	$12,108[c]
Short-Term Hospital Characteristics			
Full-Time Registered Nurses per 10,000 Residents	17.5[a]	17.6[a]	20.0[c]
Full-Time Midlevels per 10,000 Residents, (Mean)	0.2[a]	0.3[a]	0.5[c]
Short-Term Hospital Admissions per 1,000 Residents	89.4[d]	90.7	86.4[c]
Number of Short-Term Hospital Beds per 1,000 Residents	4.8[d]	4.1	3.7[c]
Other Health Care Characteristics			
Nonfederal Total Patient Care Physicians per 10,000 Residents	6.6[d]	5.8	6.2[b]
Hospitals in Counties with Full or Partial Health Professional Shortage Area Designation (Percentages not medians)	56	57[a]	84.2
Five-Year Infant Mortality Rate, 1988-92 per 1,000 Live Births	8.5	8.5	8.0

SOURCE: Area Resource File (ARF), 1996.

NOTE: Area characteristics for the 1989 and 1990 grantees are for the counties where the hospitals are. Area characteristics for the 1995 grantees are for the counties that make up the hospital's service area. The 57 1995 grantees provided services in 122 counties. (Data for a grantee in Puerto Rico were not available in the ARF file). Except for the infant mortality rate we calculated the values for each of the 1995 grantees service area based on aggregated totals of the counties on their service area. The infant mortality rate for each hospital is the mean 5-year infant mortality rate of the counties in their service area.

[a] 1991 data used.

[b] 1994 data used.

[c] 1993 data used.

[d] Relative to 1990 population.

areas covered by the 1989 and 1990 grantees, respectively. However, the socio-economic characteristics of each cohort's population were quite similar.

Short-term hospitals in the areas served by the 1995 grantees were smaller relative to their population than those in areas served by the 1989 and 1990 grantees. They typically had about one less bed per 1,000 residents than those in the 1989 and 1990 grantees' service areas. They also had slightly larger staff-to-population ratios for registered nurses and midlevel practitioners. Perhaps reflecting their smaller size and the trend toward outpatient care, short-term hospitals in areas covered by the 1995 grantees reported slightly fewer admissions per 1,000 residents in 1993 than did the hospitals in areas covered by the 1989 and 1990 grantees in their award years.

In general, the 1995 grantees were more likely to be located in areas designated whole or part-county Health Professional Shortage Areas (HPSAs). Eighty-four percent of the counties served by the 1995 grantees were designated as HPSAs, compared to 56 and 57 percent of the counties served by the 1989 and 1990 grantees, respectively. However, the median nonfederal physician-to-population ratio for the 1995 grantees was similar to the ratios for the 1989 and 1990 grantees. The HPSA differences may have resulted from the change in our definition of an HPSA area since we defined a hospital to be in a shortage area in 1995 if any of the counties in its service areas was defined as a whole or part-county HPSA. In 1989 and 1990, the data reflect only the county where the hospitals are located.

B. DO THE 1995 GRANTEES FACE THE SAME SERVICE AREA CHALLENGES?

For many types of care, the number of providers in the service areas of the 1995 grantees is the same as the 1989 and 1990 grantees. However, a larger proportion of the 1995 grantees appears to have these providers in their service areas than did the 1990 and, especially, the 1989 grantees. (See Table V.2.) To the extent the grantees are representative of rural hospitals in the award years, the largest geographical expansion seems to have occurred in rural health clinic and home health providers. All 1995 grantees had home health agency providers in their service areas, compared to slightly under 90 percent for the 1989 and 1990 grantees. Similarly, while nearly 60 percent of the 1995 grantees had rural health clinics in their service areas, only 37 percent of the 1989 grantees and 30 percent of the 1990 grantees reported having rural health clinics in their service areas.

Furthermore, if the grantees are indeed representative of rural hospitals in their award years, the results suggest there has been a tremendous growth in the number of rural health clinics and home health agencies since 1989 and 1990. The rate of growth in rural health clinics appears to be especially rapid. Since new areas start with no providers, to have the *average* number of home health agencies and rural health clinics *increase* slightly indicates there has been a large growth in the number of these providers.

C. DO THE 1995 GRANTEES FACE THE SAME SERVICE UTILIZATION PROBLEMS?

The 1995 grantees generally were larger, especially when compared to the 1990 grantees. Only 12 percent of the 1995 grantees had fewer than 26 licensed beds, compared to a quarter of

TABLE V.2

HEALTH SERVICE PROVIDERS LOCATED IN THE GRANTEES' SERVICE AREAS
(1989, 1990, AND 1995 GRANTEES)
(At Time of Award)

	Percentage of Hospitals Reporting that Provider Available			Average Number of Providers, for Hospitals with Providers		
Characteristic	1989 Grantees (N = 174)	1990 Grantees (N = 205)	1995 Grantees (N = 58)	1989 Grantees (N = 174)	1990 Grantees (N = 205)	1995 Grantees (N = 58)
Hospitals (Acute Care)	90.1	96.6	96.6	1.7	1.8	1.5
Nursing Homes	92.5	96.1	96.6	3.4	3.3	3.2
Home Health Agencies	87.8	87.3	100.0	2.2	2.0	2.9
Rural Health Clinics	37.1	29.9	58.6	1.8	1.9	2.3
Public Health Clinics	58.0	57.9	60.3	1.5	1.5	1.4
Community Health Centers	19.9	13.9	22.4	1.6	1.3	1.3
Migrant Health Centers	3.9	4.4	5.2	1.0	1.0	1.0

SOURCES: Data for the 1995 grantees are from their background reports. Service area providers data for the 1989 and 1990 grantees are from Table III.3 in Wooldridge et al. (1994).

the 1990 grantees and about a fifth of the 1989 grantees (see Table V.3). Conversely, the 1995 grantees were more likely than the 1989 and 1990 grantees to have more than 50 licensed beds.

Despite the 1995 grantees' larger size, the services offered by the 1995 grantees did not differ very much from those of the 1989 and 1990 grantees (except for diagnostic radiology services). Nearly 70 percent of the grantees in each cohort had swing bed services and approximately 60 percent had intensive care services. Similarly, nearly all of the hospitals in the three cohorts offered emergency room services and the 1995 grantees were as likely as the 1989 and 1990 grantees to offer 24-hour emergency room services.

Reflecting the larger size of the first-time grantees as well as improvements in medical technology, the 1995 grantees were more likely than the 1989 and 1990 grantees to have diagnostic radiology services. About three-quarters of the 1995 grantees offered computed axial tomography services, compared to 55 and 63 percent, respectively, for the 1989 and 1990 grantees at their projects' startup. Similarly, 43 percent of the 1995 grantees had magnetic resonance imaging (MRI) services, compared to only 6 percent of the 1989 grantees and 8 percent of the 1990 grantees.

The increases in MRI services are due to a combination of improved portable technology and the hospitals' larger size. All but 1 of the 25 hospitals with MRI services were using mobile MRIs. Furthermore, the proportion of the 1995 grantees offering MRI services increased with the number of licensed beds. Fourteen percent of the hospitals with fewer than 26 licensed beds offered MRI services. The proportion increased to 30 percent for hospitals with 26 to 50 licensed

TABLE V.3

HOSPITAL CHARACTERISTICS AND SERVICES OF THE 1989, 1990, AND 1995 GRANTEES
(At Time of Award)

Characteristic	Percentages 1989 Grantees (N = 173)	 1990 Grantees (N = 205)	 1995 Grantees (N = 58)
Number of Licensed Hospital Beds			
1 to 25	21.4	25.4	12.1
26 to 50	43.4	45.9	46.6
51 to 75	14.5	18.5	22.4
76 or more	20.8	10.2	19.0
Grantees Offering Services			
Swing beds	65.8	69.3	69.0
Intensive care unit	64.0	57.6	62.1
Emergency room	100.0	99.5	98.3
Always open	97.0	100.0	98.3
Always staffed by a physician	48.0	39.4	41.4
Computed axial tomography	54.9	62.9	75.9
Magnetic resonance imaging	6.2	8.3	43.1

SOURCES: Data for the 1989 and 1990 grantees are from Table II.2 in Cheh et al. (December 1991). Emergency room hours and staffing data for the 1989 grantees are from Table II.5 in Cheh et al. (January 1991), and for the 1990 grantees from Table V.4 in Wooldridge et al. (1994). Data for the 1995 grantees are from their background reports.

NOTE: Because hospitals keep their records differently, some hospitals could not report all data elements. Percentages are of all those hospitals that reported the data element.

beds, 46 percent for hospitals with 51 to 75 licensed beds, and 91 percent for hospitals with more than 75 licensed beds (not shown in table).

Larger and about 8 minutes farther from the nearest tertiary care hospital, the 1995 grantees reported losing a smaller proportion of their patient base to competitors than did the 1989 and 1990 grantees. The results in Table V.4 show that only 12 percent of the 1995 grantees reported losing more than half of their patients to competitors. In contrast, nearly a fifth (18 percent) of the 1990 grantees and more than a quarter (27 percent) of the 1989 grantees reported losing half of their patients to competitors.

The 1995 grantees were slightly more successful than the 1989 and 1990 grantees in filling their beds. They were less likely than the 1989 and 1990 grantees to have an occupancy rate under 11 percent. Only about 2 percent of the 1995 grantees had occupancy rates under 11 percent, compared to 7 percent for the 1989 grantees and 10 percent for the 1990 grantees. Their modest success in capturing their patient base may have contributed to the higher occupancy rates among the 1995 grantees, despite their location in more sparsely populated areas. Improvements in staffing may have also contributed to the increase (see next section).

One noticeable difference among the cohorts is the difference in the inpatient payer mix. The average 1995 grantee had a larger proportion of its hospital days covered by Medicare than did the 1989 and 1990 grantees. The average 1995 grantee had 59 percent of its hospital days paid for by Medicare, compared to 41 percent and 48 percent for the 1989 and 1990 grantees, respectively. The average 1990 and 1995 grantees had about a quarter of its hospital days paid by private insurance (26 and 23 percent, respectively). In contrast, private insurance paid for

TABLE V.4

SERVICE UTILIZATION OF THE 1989 AND 1995 GRANTEES
(At Time of Award)

Characteristic	1989 Grantees[a] (N = 173)	1990 Grantees (N = 205)	1995 Grantees (N = 58)
Patients in Service Area That Go to Another Hospital for Services (Percentages)			
Less than 10	9.3	6.9	15.5
10 to 24	34.3	34.5	37.9
25 to 49	29.1	40.4	34.5
50 to 74	23.8	14.3	12.1
75 to 100	3.5	3.9	0.0
Occupancy Rate of Licensed Beds (Percentage)			
Less than 10	7.0	10.0	1.8
11 to 25	33.9	36.5	35.1
26 to 40	32.1	32.0	38.6
41 to 50	16.4	14.5	14.0
51 to 75	10.5	6.0	10.5
More than 75	0.0	1.0	0.0
Average Number of Hospital Days, by Payer (Percentages)			
Medicare	41	48	59
Medicaid	10	14	14
Private insurance[b]	35	26	23
Private pay[b]	8	10	4
No payment[b]	5	2	[c]
Total number of days	7,481	6,101	6,892
Average Number of Outpatient Visits	15,069	NA	16,208
Average Number of Emergency Room Visits	4,990	4,442	6,247

SOURCES: Patients' migration data for the 1989 and 1990 grantees are from Table III.2 in Wooldridge et al. (1994). Occupancy rate and payer mix data for the 1989 and 1990 grantees are from Table II.2 and III.9 in Cheh et al. (December 1994). Outpatient and emergency room visits' data for the 1989 grantees are from Table II.5 in Cheh et al. (January 1991). Emergency room visits data for 1990 grantees are from Table V.4 in Wooldridge et al. (1994). Data for the 1995 grantees are from their background reports.

TABLE V.4 *(continued)*

---

[a] Use of other hospitals and hospital days figures based on reports from 174 hospitals. Occupancy rate figures based on reports from 173 hospitals. Outpatient and emergency room figures based on reports from 175 hospitals.

[b] In some cases, hospitals only kept separate records of Medicare and Medicaid admissions. For these observations, the total number of non-Medicare and non-Medicaid admissions were added into the private insurance category.

[c] Less than 1 percent.

NA = not available.

slightly more than a third (35 percent) of the hospital days for the average 1989 grantee. The typical 1995 grantee also had a smaller proportion of its hospital days privately paid or not paid.

Several factors may be responsible for the Medicare inpatient payer mix differential between the 1995 grantees and the 1989 and 1990 grantees. One reason for the difference might be that rural hospitals experiencing the most financial difficulty today are those that have a greater proportion of their patients on Medicare. Thus, the hospitals that are likely to seek RHCT grants are different from those in the past. The difference may also result from a combination of circumstances peculiar to the 1995 grantees. Because of the scarcity of doctors among the 1995 grantees, non-Medicare patients may be obtaining their medical care elsewhere. Younger non-Medicare patients may be less averse to traveling and may not have an established relationship with area physicians. Also, since the 1995 grantees were generally larger than the grantees at the start of the program, they may be better equipped and staffed to handle patients requiring a higher level of care than smaller hospitals. Thus, the difference in inpatient payer mix may be because the 1995 grantees are better able to handle Medicare patients requiring a higher level of care and, at the same time, are losing non-Medicare patients due to the shortage of physicians.

The 1995 grantees experienced a larger volume of outpatient and emergency room visits. They averaged more than 1,000 outpatient visits more than did the 1989 grantees. The increase in outpatient visits suggests some care that was previously rendered on an inpatient basis was being provided on an outpatient basis in 1995.

Despite offering similar emergency room services, the 1995 grantees reported heavier use of their emergency room services. The 1995 grantees averaged 6,247 emergency room visits, compared to 4,990 and 4,442 visits for the 1989 and 1990 grantees, respectively. A number of factors may explain the greater use of 1995 grantees' emergency room services. It may be that the shortage of physicians among the 1995 grantees has forced patients to seek primary care at emergency rooms. Another reason is their larger size and the diffusion of technology enables the 1995 grantees to handle more emergency cases. A third reason may be the distance to the nearest tertiary care hospital. The typical 1995 grantee was slightly farther from the nearest tertiary care hospital than were the 1989 and 1990 grantees--75 minutes, compared to 67 minutes for both the 1989 and 1990 grantees.

D. DO THE 1995 GRANTEES FACE THE SAME STAFFING PROBLEMS?

With a few exceptions, the staff sizes of the 1995 grantees do not differ very much from those of the 1989 and the 1990 grantees. One area of difference between the 1995 grantees and the 1989 and 1990 grantees is physician staffing. The 1995 grantees, which were slightly larger in size, had slightly more physicians than did either the 1989 or 1990 grantees. The 1995 grantees have three more physicians than the 1989 grantees and four more than the 1990 grantees. (See Table V.5.) The 1995 grantees were as likely to be recruiting physicians as their 1990 counterparts. Approximately three-quarters of the 1995 and 1990 grantees were recruiting physicians, compared to slightly more than half of the 1989 grantees. Moreover, the 1995 grantees were recruiting one more physician than the 1990 grantees and about three more than the 1989 grantees.

TABLE V.5

STAFFING OF THE 1989, 1990, AND 1995 GRANTEES
(At Time of Award)

Characteristic	1989 Grantees (N = 173)	1990 Grantees (N = 205)	1995 Grantees (N = 58)
Physician Staffing			
Average Number of Physicians on Staff	10.4	9.5	13.4
Average Number of Physicians Being Actively Recruited[a]	1.2	2.8	3.8
Hospitals Recruiting a Physician (Percentages)	54.0	77.0	77.6
Hospitals with Internal Medicine Services (Percentages)	63.8	64.9	65.5
Hospitals with General Surgeon Services (Percentages)	92.0	85.4	82.8
Average FTEs for Selected Nonphysician Staff			
Registered Nurses	23.8	23.6	30.8
Licensed Practical Nurses	12.4	11.4	10.9
Aides and Orderlies	13.0	12.7	12.8
Physical Therapists	1.0	1.1	2.4

SOURCES: Data for the 1989 and 1990 grantees are from Table II.3 and II.9 in Cheh et al. (December 1993). Data for the 1995 grantees are from their background reports.

NOTE: Because hospitals keep their records differently, some hospitals could not report all data elements. Percentages are of all those hospitals that reported the data element.

[a] Average for hospitals recruiting physicians.

FTE = full-time equivalent.

Although staffed with more physicians, the 1995 grantees are no more likely than the 1989 and 1990 grantees to have internal medicine specialty services. Nearly two-thirds of the grantees in each cohort offered internal medicine services. The 1995 grantees were less likely than the 1989 grantees to have general surgeon services. There was little difference in the level of general surgeon services in the 1995 and 1990 cohorts.

Perhaps because of their larger size, the average 1995 grantee had larger registered nursing and physical therapy staffs than either the 1989 or the 1990 grantees. The average 1995 grantee had about 30 registered nurses on staff, compared to about 24 for both the 1989 and the 1990 grantees. Also, the 1995 grantees had one more physical therapist than the 1989 or the 1990 grantees. The 1995 grantees did not differ measurably from the 1989 and 1990 grantees in the size of their licensed practical nurse staff. Nor did the cohorts differ greatly in their orderly and aide staff.

E. ARE 1995 GRANTEES IN BETTER FINANCIAL CONDITION?

The financial condition of the 1995 grantees is slightly better than that of the 1989 and 1990 grantees. Although the ratio of total liabilities to total assets (a measure of relative debt burden) is about the same for the three cohorts, the median operating margin of the 1995 grantees is slightly better. (See Table V.6.)

In current dollars, the 1995 grantees' median revenue exceeded the median revenues for the 1989 and 1990 grantees by about $1.5 million and $2.5 million, respectively. When adjusted for national inflation, the differences narrow by about a million dollars. However, when adjusted for

TABLE V.6

FINANCIAL INDICATORS OF THE 1989, 1990, AND 1995 GRANTEES
(In Fiscal Year of Award)

Characteristic	1989 Grantees (N = 175)	1990 Grantees (N = 205)	1995 Grantees (N = 58)
Median Total Liabilities ÷ Total Assets	0.46	0.42	0.46
Median Operating Margin[a]	-0.04	-0.05	-0.02
Median Revenue in Fiscal Year Before Award[b] (Current Dollars)	$4,506,574	$3,629,140	$6,044,698
Median Revenue in Fiscal Year Before Award[b] (1987 Constant Dollars)			
Adjusted for medical care inflation[c]	$4,207,819	$3,136,681	$3,937,914
Adjusted for national inflation[d]	$4,337,415	$3,344,829	$4,797,379

SOURCES: Data for the 1989 and 1990 grantees are from Table II.5 in Cheh et al. (December 1991). Data for the 1995 grantees are from their background reports.

NOTE: Because hospitals keep their records differently, some hospitals could not report all data elements. Percentages are of all those hospitals that reported the data element.

[a] Defined as $\dfrac{(\text{Net Patient Service Revenue} - \text{Operating Costs})}{\text{Net Patient Service Revenue}}$

[b] Revenue includes both operating and nonoperating revenue, inpatient as well as outpatient.

[c] Medical Care Indices for Personal Consumption Expenditures from the *Survey of Current Business*, July 1992 and September 1995.

[d] Gross National Product Implicit Price Deflators from the *Survey of Current Business*, July 1992 and September 1995.

medical care inflation, the 1995 grantees' median revenue fell between the median revenues for the 1989 and 1990 grantees.

F. DO THE 1995 GRANTEES' PERCEPTION OF RURAL PROBLEMS DIFFER?

The grantees were asked to report three issues that concerned them the most. The results, which are displayed in Table V.7, reveal the proportion of each cohort expressing concern about selected issues. The results show that the issues that were of greatest concern in each of the cohorts were physician recruitment/retention and Medicare and Medicaid reimbursement. While approximately 70 percent of grantees in each cohort were concerned about physician shortages, concern about Medicare and Medicaid reimbursement has grown in each of the succeeding cohorts examined here. Nearly 55 percent of 1989 grantees expressed concern about reimbursements, and the proportion had increased to 82 percent of 1990 grantees. Concern about Medicare and Medicaid reimbursement was nearly universal (95 percent) among the 1995 grantees. The increasing concern about Medicare and Medicaid reimbursement in succeeding cohorts is understandable given the Federal government's efforts to control the growth in costs of these two programs and the press coverage these and other efforts have received.

In addition, hospital days that are dependent on Medicare and Medicaid reimbursement are likely to be more sensitive to changes in those programs. As shown in Table V.4, each succeeding cohort had a larger share of its hospital days covered by Medicare. Medicare or Medicaid covered 5 of 10 hospitals for 1989 grantees, 6 of 10 hospital days for 1990 grantees, and 7 of 10 hospital days for 1995 grantees.

TABLE V.7

HOSPITALS' PERCEPTION OF THEIR PROBLEMS (1989, 1990, AND 1995 GRANTEES) (At Time of Award)

	Percentage of Hospitals Identifying Each as a Primary Problem		
Problem	1989 Grantees (N = 181)	1990 Grantees[a] (N = 88)	1995 Grantees (N = 57)
Physician Shortage, Recruitment, or Retention	71.0	71.6	68.4
Medicare and Medicaid Reimbursement	55.0	81.8	94.7
Nonphysician Health Professional Shortages	36.0	48.9	5.3
Aging Population	15.9	5.0	22.8
Rural Economy	7.0	22.7	26.3
Ability to Keep Pace with Technological Advancement	15.0	14.8	17.5
Declining Rural Population	NA	11.4	8.8
Patient Out-Migration (Competition)	9.0	20.5	34.5

SOURCES: Data for the 1989 grantees are from Table III.5 in Cheh and Wooldridge (March 1993). Data for the 1990 grantees are from Table III.7 in Wooldridge et al. (1994). Data for the 1995 grantees are from their background reports.

[a] Some grantees did not rank their concerns but instead rated them individually. Because many of these grantees rated all problems of equal concern, their responses were not included in the discussion of perceived problems.

NA = not available.

Two other results are worth noting. First, nonphysician health professional shortage was of much less concern among the 1995 grantees than it was among the first two cohorts. Only 5 percent of the 1995 grantees were concerned about this issue, compared to nearly half of the 1990 grantees (49 percent) and slightly more than a third of the 1989 grantees (36 percent). The reduced concern over nonphysician professional shortage may be explained in part by the larger nursing staff found among the 1995 grantees, the movement to reduce the number of staffed beds, efforts to redesign work, and incentives that have attracted new members to the professions. These factors are believed to have brought an end to the nursing shortage experienced in the 1980s (Lumsdon 1995).

Second, each succeeding cohort has become increasingly more concerned about patient out-migration. Although slightly more remote from tertiary care hospitals than the two earlier cohorts, about a third (35 percent) of the 1995 grantees expressed patient out-migration as one of their three top concerns. In contrast, only about a fifth (21 percent) of the 1990 grantees and a tenth (9 percent) of the 1989 grantees were concerned about patient out-migration.

It is hard to understand this concern, since 1995 grantees reported losing a smaller proportion of their patient base than did the 1989 and 1990 grantees. The concern might reflect what the 1995 cohorts believe will be a major challenge in the future as managed care plans penetrate further into rural areas. Hudson (1995) found that, even though managed care plans had relatively weak penetration into rural areas, more than three-fourths of rural hospital administrators that established affiliations with another hospital or health system did so because of their concern about being left out of managed care contracts. Thus, although not one of the listed responses, four (seven percent) of the 1995 grantees reported that managed care competition was one of their top three concerns.

Another reason for this apparent contradiction is the 1995 grantees' concern that their physician shortage problem may lead to their patients' seeking medical care from physicians outside their service areas. In addition, the hospitals may have answered the question about out-migration in terms of their outpatient services and the question about perceived problems in terms of their inpatient services.

G. CONCLUSION

Perhaps because of their larger size and greater remoteness, the 1995 grantees appear to be facing slightly different challenges from the ones faced by the grantees at the start of the RHCT grants program. The major challenges the 1995 grantees face are a physician shortage problem that is more acute and widespread than that faced by the 1989 and 1990 grantees and being more dependent on Medicare for their inpatient revenues. Remoteness contributes to the physician shortage problem by making it more difficult to recruit physicians to their areas, and size requires them to maintain a larger staff of physicians. Not only were a larger proportion of 1995 grantees recruiting physicians, but, on average, they were recruiting more physicians, despite averaging three more physicians on staff.

Their increased dependence on Medicare for inpatient revenues may also stem from the 1995 grantees' greater remoteness and larger size. Because of the remoteness of 1995 grantees, Medicare patients in their service area may be opting to receive medical care at their facilities. Larger size may indicate that the 1995 grantees are able to provide a higher level of care thus allowing them to care for a larger proportion of their Medicare patients. The physician shortage problem may be contributing to out-migration by forcing non-Medicare residents who are more mobile and have less established relationships with area physicians to seek medical care elsewhere.

On the other hand, the 1995 grantees appear to be in a stronger position than the 1989 and 1990 grantees because of these features. Their larger size may be associated with their providing more services, particularly diagnostic radiology services, than the early grantees. Their remoteness may contribute to their higher outpatient volume and their ability to retain a larger proportion of their patient base. Also, because they are larger and require a larger physician staff, they are less dependent on a single physician than are smaller facilities. A final strength of the 1995 grantees, which appears to be unrelated to their size and remoteness, is the greater diversity of health care providers.

VI. ARE DIFFERENCES BETWEEN REPEAT AND FIRST-TIME GRANTEES CONSISTENT WITH PRIOR GRANT PROJECTS?

The Rural Health Care Transition (RHCT) grants program was intended to assist rural hospitals to adjust to a changing environment and to improve their financial condition. The grantees used their grant funds to finance projects to help them adjust to the changes taking place in health care. Many of the projects expanded or enhanced hospital services or recruited health care professionals. For example, nearly 60 percent of the 1989 and 1990 grantees used their RHCT grant funds to upgrade outpatient services and about a quarter of them used their grant funds for physician recruitment (Cheh and Wooldridge March 1993; and Wooldridge et al. 1994). Thus, if the grant program has affected rural hospitals, one should expect to find differences between hospitals that previously received RHCT grant funds and those that have not previously received grant funds in ways that are consistent with their previous RHCT projects.

Between 1989 and 1996, 1,224 grants were awarded to 938 hospitals. Of those, 231 were awarded more than one grant. In this chapter, we compare the 29 1995 grantees who are previous RHCT grant recipients to 29 who are receiving RHCT grants for the first time. We compared the grantees' service area characteristics, hospital characteristics, staffing and staffing needs, service utilization, and finances. If the grant project has affected hospitals, we expect to find a greater diversity of improvements, especially in outpatient care, lower staffing needs, better use of services, and better financial performance. In the final section of this chapter, we discuss whether any differences between the two groups arise from prior participation in the RHCT grants program or whether they are more likely to result from service area characteristics.

We would like to emphasize, however, that any observed differences may not be a consequence of the RHCT grants program. Because the grants were not awarded by the Health Care Financing Administration randomly, alternative explanations cannot easily be ruled out. Therefore, factors associated with an earlier grant award may also be associated with hospital performance and characteristics. For example, the early grant recipients may have been hospitals administered by executives who were more interested in transition than their counterparts. Thus, any observed differences may be the result of differences in executives and not the grant program.

A. DO SERVICE AREA CHARACTERISTICS OF REPEATERS AND FIRST-TIMERS DIFFER?

Service areas of first-time and repeat grant recipients differed in a number of ways. First, data from the 1996 Area Resource File reveals that the typical first-time grantee was located in a more densely populated area than the typical repeat grantee. (See Table VI.1.) The median population per square mile for first-timers was nearly twice that for repeaters--27 people, compared to 14. Although a similar proportion of first-time grantees and repeat grantees was located in a Health Professional Shortage Area (HPSA), professional shortages appear to be slightly more acute among first-time grantees. Relative to their population, first-time grantees had slightly fewer physicians, registered nurses, and midlevel practitioners. This health personnel shortage may have contributed to the lower hospital admissions and higher infant mortality rate among first-time grantees.

TABLE VI.1

AREA CHARACTERISTICS OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT
(Medians)

	Repeat Grantees (N=28)	First-Time Grantees (N=29)
Demographic Characteristics		
Population Density per Square Mile, 1990	13.6	25.6
Percentage of Population Age 65 and Over, 1994	15.9	16.1
Annual per Capita Income, 1993	$14,794	$15,768
Persons Below Poverty, 1989	15.5	15.3
Short-Term Hospital Characteristics		
Full-Time Registered Nurses per 10,000 Residents, 1993	20.6	18.9
Full-Time Midlevels per 10,000 Residents, 1993 (Mean)	0.3	.1
Short-Term Hospital Admissions per 1,000 Residents, 1993	89.9	85.7
Number of Short-Term Hospital Beds per 1,000 Residents, 1993	3.5	4.0
Other Health Care Characteristics		
Nonfederal Total Patient Care Physicians per 10,000 Residents, 1994	7.1	6.1
Percentage of Hospitals in Counties with Full or Partial Health Professional Shortage Area Designation	85.7	83.0
Five Year Infant Mortality Rate, 1988-92, per 1,000 Live Births	7.4	8.5

SOURCE: Area Resource File, 1996.

NOTE: Area characteristics are for the counties that make up the hospital's service area. The 57 hospitals provided services in 122 counties, 65 by repeat grantees and 57 by first-time grantees. (Data for a grantee in Puerto Rico were not available in the ARF file). Except for the infant mortality rate we calculated the values for each of the 1995 grantee's service area based on aggregated totals of the counties in their service area. The infant mortality rate for each hospital is the mean 5-year infant mortality rate of the counties in their service area.

Access to providers appears to vary somewhat by grant history. The results, which are presented in Table VI.2, show that previous grant recipients were more likely to have rural health clinics and slightly more likely to have another hospital in their service area; first-time grantees were more likely to have community health centers and slightly more likely to have nursing homes. Twenty (69 percent) of the repeat grantees had a rural health clinic in their service area, compared to just 14 (48 percent) first-time grantees. The greater proliferation of rural health clinics in the repeat grantees' service areas may explain the higher midlevel practitioner-to-population ratio found in their service areas. Also, all of the repeat grantees had another hospital in their service area, compared to 27 (93 percent) first-timers. On the other hand, 10 (35 percent) first-time grantees had community health centers in their service area, compared to 3 (10 percent) repeat grantees. Finally, all 29 of the first-time grantees had a nursing home in their services area, compared to 27 (93 percent) repeat grantees.

Prior receipt of grant funds did not appear to be related to the presence of home health agencies, public health agencies, and migrant health centers. In addition, it was not related to distance from the nearest tertiary care hospital. The median travel time to a tertiary care hospital for both repeat and first-time grantees was 75 minutes (not shown in table).

The table also shows the average number of providers varied less than the presence of providers. The only noticeable difference was that first-time grantees averaged about one more nursing home and home health agency in their service area than did repeat grantees.

TABLE VI.2

SERVICE AREA CHARACTERISTICS OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT
(At Time of Award)

	Number of Hospitals Reporting that Providers Available		Average Number of Providers for Hospitals with Providers	
Characteristic	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)
Hospitals (Acute Care)	29	27	1.4	1.6
Nursing Homes	27	29	2.6	3.8
Home Health Agencies	29	29	2.6	3.3
Rural Health Clinics	20	14	2.5	2.1
Public Health Clinics	18	17	1.3	1.5
Community Health Centers	3	10	1.7	1.2
Migrant Health Centers	1	2	1.0	1.0

B. DO HOSPITAL CHARACTERISTICS OF REPEATERS AND FIRST-TIMERS DIFFER?

An examination of the grantees' hospital characteristics displayed in Table VI.3 reveals some differences between the first-time and repeat grantees. Repeat grantees generally have fewer licensed beds than first-time grantees. The number of prior grantees with fewer than 26 licensed beds is more than twice that of first-time grantees (5 repeat grantees, compared to 2 first-time grantees), while the number of first-time grantees with 51 to 75 licensed beds is more than twice that for repeat grantees (9 first-timers, compared to 4 repeat grantees).

Repeat and first-time grantees also differ in terms of the services they provide. First-time grantees are slightly more likely to emphasize acute care and diagnostic services. For example, they are more likely to have an intensive care or a cardiac care unit. As shown in Table VI.3, 19 (66 percent) first-time grantees have intensive care units, compared to 17 (59 percent) repeat grantees. Similarly, 10 (35 percent) of the first-timers had a cardiac care unit, compared to 8 (28 percent) repeaters. Also, although repeat grantees are as likely as first-time grantees to have 24-hour emergency services, the first-timers are more likely to staff their emergency room with a physician. Fourteen of the 29 (48 percent) first-time grantees, compared to 10 of the 28 (36 percent) repeat grantees reporting, always staffed their emergency room with a physician. However, when size of facility was controlled for, the results suggest these differences were generally restricted to larger facilities (results not shown).

First-time grantees are also more likely to offer diagnostic radiology services. Twenty-six (90 percent) of the first-time grantees had computed axial tomography services, compared to only

TABLE VI.3

HOSPITAL CHARACTERISTICS AND SERVICES OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT

(At Time of Award)

	Number	
Characteristic	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)
Number of Licensed Hospital Beds[a]		
1 to 25	5	2
26 to 50	14	13
51 to 75	4	9
76 or more	6	5
Hospital and Diagnostic Services		
Swing beds	24	16
Skilled nursing beds	19	13
Intensive care unit	17	19
Cardiac care unit	8	10
Emergency room		
Always open	28	29
Always staffed by a physician	10[b]	14
Computed axial tomography	18	26
Magnetic resonance imaging	11	14
Ultrasound	26	28
Mammography	26	26
Clinics		
Satellite	11	12[b]
Routine	16	14[b]
Therapeutic, Rehabilitation, and Home Health Services		
Physical	27	27
Occupational	19	14
Speech	19	20
Respiratory	28	26
Home health	22	15
Cardiac rehabilitation	13	12
Audiology	7	7
Chemical dependency rehabilitation	1	4
Other Health Care Services		
Adult day care/respite care	9	7
Wellness/patient education	20	21
Assisted living program	3	1

[a] One of the hospitals did not report its licensed beds for September 30, 1995. It was assigned the number of licensed beds it reported for December 31, 1995.

[b] One hospital failed to answer.

18 (62 percent) of previous grantees. Similarly, they were slightly more likely to have magnetic resonance imaging services (14 first-time grantees, compared to 11 repeat grantees). Finally, the first-timers were also slightly more likely to have ultrasound services. No difference in mammography services was found between first-time and previous grantees.

Repeat grantees, on the other hand, are more likely than first-time grantees to stress after-care and rehabilitation services. While 24 (83 percent) of previous grant recipients had swing beds, only 16 (55 percent) first-time grantees had swing beds. Likewise, more repeat grantees than first-time grantees have skilled nursing beds--19 (66 percent) repeaters, compared to 13 (45 percent) first-timers.

Repeat grantees were more likely to have rehabilitation and home health services. Nineteen (66 percent) repeat grantees have occupational therapy, compared to 14 (48 percent) of the first-time grantees. Repeat grantees were also slightly more likely than first-time grantees to have respiratory therapy. Home health services were also more frequently found among repeat grantees than among first-time grantees. The only rehabilitation service that was more likely to be offered by first-time grantees was chemical dependency therapy. No large differences were observed between first-time and repeat grantees in physical, speech, and audiology therapies.

The greater emphasis on transitional and after-care services by repeat grantees may reflect their desire to fill a need in their service areas. The results from the previous section showed repeat grantees were less likely to have nursing homes in their service areas and to have fewer nursing homes and home health providers. Additional analysis revealed that the differences in skilled nursing and respiratory therapy services occurred among hospitals in areas with lower population density. Population density did not affect the relationship observed between grant history and other services (results not shown).

The results for clinics and other health care services were mixed. Repeat grantees were slightly more likely to have routine clinics. Repeat grantees are also slightly more likely to have respite or adult day care and an assisted-living program. No large differences were observed in satellite clinics and wellness and patient education programs.

C. DO STAFFING NEEDS OF REPEATERS AND FIRST-TIMERS DIFFER?

Although they have larger facilities, with the exception of the nursing staff, staff size of first-time and previous grantees was similar. (See Table VI.4.) Both the first-timers and repeaters had approximately 13 physicians on staff. In addition, 24 (83 percent) grantees from each group offered general surgery. However, slightly more first-time grantees than repeat grantees offered internal medicine services.

The typical first-time grantee had a larger nursing staff than the repeat grantees. First-time grantees averaged 33 full-time equivalent (FTE) registered nurses and 12 FTE licensed practical nurses, compared to 28 registered nurses and 10 licensed practical nurses for the repeat grantees. Both groups of grantees had an average of 13 FTE aides and orderlies and 2 FTE physical therapists.

Given that they were larger and had, on average, the same number of physicians as previous grantees, it is not surprising that first-time grantees had a greater need for physicians. (See Table VI.5.) Not only were more first-time grantees recruiting physicians (24 first-time grantees,

TABLE VI.4

STAFFING OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT
(At Time of Award)

Characteristic	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)
Physician Staffing		
Number of Physicians on Staff (Average)	13.2	13.6
Hospitals with Internal Medicine Services (Number)	18.0	20.0
Hospitals with General Surgery Services (Number)	24.0	24.0
Average FTEs for Selected Nonphysician Staff		
Registered Nurses	28.2	33.4
Licensed Practical Nurses	9.8	12.0
Aides and Orderlies	12.9	12.7
Physical Therapists	2.3	2.4

NOTE: Because hospitals keep their records differently, some hospitals could not report all data elements. Percentages are of all those hospitals that reported the data element.

FTE = full-time equivalent.

TABLE VI.5

NUMBER OF HOSPITALS WITH NONPHYSICIAN STAFF SHORTAGES OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT

(At Time of Award)

	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)
Number of Physicians Being Actively Recruited (Average)	3.5	4.1
Number of Hospitals Recruiting Physicians	21	24
Nurses	6	4
Allied health professionals	13	12
Other	1	1

compared to 21 repeat grantees) but, among those recruiting physicians, the first-time grantees, were, on average, recruiting slightly more physicians.

On the other hand, previous grant recipients had a greater need for nursing. Six of the 29 (21 percent) repeat grantees indicated they had a nursing shortage, compared to 4 of the 29 (14 percent) hospitals that have never previously received an RHCT grant.

D. IS SERVICE UTILIZATION BETTER AMONG REPEAT GRANTEES?

Although repeat grantees appeared to be capturing a larger proportion of their patient base, they reported lower occupancy rates. As Table VI.6 shows, the number of repeat grantees losing 25 to 49 percent of their patient base to another hospital was approximately half that of first-time grantees (9, compared to 13). However, more repeat grantees had low (under 26 percent) occupancy rates. Twelve of the repeat grantees had occupancy rates under 26 percent, compared to nine for first-time grantees. Repeat grantees were much less likely than first-time grantees to have occupancy rates between 26 and 40 percent (9 for repeat grantees, compared to 13 for first-time grantees).

Repeat grantees had a larger number of outpatient visits and a lower number of hospital days and emergency room visits than first-time grantees. As Table VI.6 shows, repeat grantees averaged 16,926 outpatient visits, compared to 15,463 for first-time grantees. On the other hand, first-time grantees averaged 7,826 hospital days and 7,298 emergency room visits, compared to 5,963 hospital days and 5,234 emergency room visit for repeat grantees. These results appear to be consistent with the services the hospitals tended to offer. As reported in Section B, previous

TABLE VI.6

SERVICE UTILIZATION OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT
(At Time of Award)

Characteristic	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)
Patients in Service Area That Go to Another Hospital for Services (Number)		
Fewer than 10	5	4
10 to 24	13	9
25 to 49	7	13
50 to 74	4	3
75 to 100	0	0
Occupancy Rate of Licensed Beds (Number)[a]		
Fewer than 10	1	0
11 to 25	11	9
26 to 40	9	13
41 to 50	5	3
51 to 75	3	3
Greater than 75	0	0
Average Number of Hospital Days by Payer (Percentages)[b]		
Medicare	58	59
Medicaid	15	13
Private insurance[c]	22	23
Private pay[c]	5	4
No payment[c]	1	1
Total number of hospital days	5,963	7,826
Mean Number of Outpatient Visits	16,926	15,463
Mean Number of Emergency Room Visits	5,234	7,298

[a] One first-time grantee did not respond to this question.

[b] Percentages based on the number of reporting hospitals.

[c] In some cases, hospitals kept separate records of Medicare and Medicaid admissions only. For these observations, the total number of non-Medicare and non-Medicaid admissions were added to the private insurance category.

grantees emphasized outpatient and transitional care, while first-time grantees stressed acute care hospital services.

Despite having approximately the same number of hospitals in their service area, being about the same distance from the nearest tertiary care hospital, and having nearly all of the hospitals in both groups offering 24-hour emergency care, the average number of emergency room visits was much higher for first-time grantees. The first-time grantees averaged 7,298 emergency room visits compared to 5,234 for the previous grantees. Much of this difference appears to be the result of non-emergent care visits since the median proportion of primary care cases in the emergency room during the year before the grant award was 50 percent for the first-time grantees, compared to 32 percent for previous grantees (not shown in table). This may be a consequence of the physician shortage problem among first-time grantees we noted earlier. First-time grantees had the same number of physicians on staff as previous grantees despite their larger size and they were less likely to staff the emergency room with a physician. They were also more likely to be recruiting for physicians and to be recruiting for a larger number of physicians.

The payer mix for inpatient care between first-time and previous grantees was nearly identical. Both groups had nearly 60 percent of their hospital days covered by Medicare, about 15 percent of their hospital days covered by Medicaid, and slightly more than 20 percent covered by private insurance.

E. ARE REPEAT GRANTEES IN BETTER FINANCIAL CONDITION THAN FIRST-TIMERS?

Table VI.7 reveals the financial conditions between first-time grantees and repeat grantees do not differ very much. Both have about the same median total liabilities to total assets ratio. And, although first-time grantees' median revenues in the fiscal year before the award was about $1.75 million more than repeat grantees, the median operating margin for the first-timers was only slightly better than the median operating margin for the repeaters.

F. SUMMARY AND CONCLUSION

Repeat grantees offered more outpatient, transitional, and after care than first-time grantees. The physician shortage problem tended to be less severe among repeat grantees. Repeat grantees felt they were capturing a larger proportion of their patient base; most of their success appeared to be through outpatient services since their outpatient volume was larger than was first-time grantees', and their occupancy rate was about the same as first-time grantees.

These differences are consistent with the types of projects the early grantees pursued. As noted in the introduction to this chapter, two of the more frequently pursued objectives by RHCT grantees were to upgrade their outpatient services and to recruit physicians. Thus, although not conclusive, the results suggest the RHCT grants program may have been successful in helping rural hospitals diversify services and recruit physicians.

If these changes are, in fact, consequences of the RHCT grants programs, they do not appear to have resulted in an improvement in the hospitals' financial condition since no large differences between first-time and repeat grantees were found in the financial indicators we used. There are

TABLE VI.7

FINANCIAL INDICATORS OF REPEAT AND FIRST-TIME GRANTEES IN THE 1995 COHORT

(In Fiscal Year of Award)

Characteristic	Repeat Grantees (N = 29)	First-Time Grantees (N = 29)
Median Total Liabilities ÷ Total Assets	0.46	0.45
Median Operating Margin[a]	-0.04	-0.01
Median Revenue in Fiscal Year Before Award Dollars[b]	5,463,554	7,227,574

NOTE: Because hospitals keep their records differently, some hospitals could not report all data elements. Percentages are of all those hospitals that reported the data element.

[a] Defined as $\frac{\text{(Net Patient Service Revenue - Operating Costs)}}{\text{Net Patient Service Revenue}}$

[b] Revenue includes both operating and nonoperating revenue, inpatient as well as outpatient.

at least two possible explanations for our failure to find the repeat grantees in better financial condition than the first-time grantees. One reason may be the repeat grantees consist of a disproportionate number of former grantees who have not improved financially. Those that have improved their financial condition may not have needed to pursue another RHCT grant. As a result, the financial outcomes of the program may have been obscured by self-selection on the part of the former grantees.

Another reason is that many of the RHCT projects were not carried out for their financial benefits. As the next chapter will show, many of the RHCT grantees did not expect their grant project to be financially self-supporting. While they all hoped that eventually their project would break even or indirectly increase their revenues, the grantees did not undertake their projects because they anticipated to gain financially from them. Instead, they used their RHCT funds to support projects that met a community need they would not have otherwise been able to fund.

VII. GRANTEES PLANNING NEW SERVICES--1994 GRANTEES

This chapter summarizes the efforts of 18 of the 1994 grantees to plan and implement new services using their grant. New services can be especially difficult for rural hospitals to implement, as they have limited space, financial resources, and staff expertise. Planning new projects requires the project director to assess community need, competition, staffing needs, and potential revenue. Successful implementation requires thorough planning and the support of the board, hospital staff, physicians, the community, and sometimes other providers. We explore how grantees selected the new service to implement using the grant, and how the service fits into the current operations and strategic plan of the hospital.

Our discussions with grantees revealed most were able to implement the proposed new service. Most new services were planned to address community need, which may account for the easy and substantial support of parties. However, many were not financially self-supporting, though grantees hoped the new service would eventually break even or indirectly help the hospital financially by publicizing the hospital. New services were often discussed by hospital staff and board members prior to the grant award, but only half of grantees would have proceeded without the assistance of grant funds. In contrast to grantees' community service orientation for grant projects, grantees generally sought revenue from other new services developed without grant funds. Thus, grant projects often fulfilled a long-standing desire to provide a service to the community that grantees would be unable to implement without grant funds.

A. SAMPLE SELECTION AND PROTOCOL DEVELOPMENT

Using telephone discussions, we collected information on the experiences of 18 grantees that proposed implementing new services or reducing acute-care beds. Targeted services included rehabilitation, skilled nursing, reducing the number of acute-care beds, wellness programs, case management, primary care, and Rural Health Clinics (RHCs). We identified grantees that proposed implementing new services from their first or second monitoring forms and determined grantees did not offer related services using information from background forms and verification during the telephone discussions. We included grantees that reported dropping or delaying plans to implement new services. We removed from the sample grantees that were interviewed last year to minimize burden. In developing the protocol, we consulted the 1992 book, *Strategic Choices for America's Hospitals, Managing Change in Turbulent Times*, by Stephen Shortell, Ellen Morrison, and Bernard Friedman. (See Appendix C for a copy of the protocol.) One-hour discussions with hospital administrators or their delegates covered planning, implementation, and barriers to success for new services, as well as grantees' current services and strategic objectives.

B. IMPLEMENTATION EXPERIENCE

1. Grantees Experienced Varying Success in Implementing New Projects

Grantees sought to implement a variety of projects with varying success. Twelve grantees implemented their proposed new services. (See Table VII.1.) Six grantees did not implement the planned service, five dropped or delayed their projects until after the grant ends, while one

TABLE VII.1

NEW SERVICES PROPOSED AND IMPLEMENTED

Service	Number of Services Proposed by Sampled Grantees	Number Implemented at Time of Discussion
Rural Health Clinic or Primary Care	6	5[a]
Cardiac or Pulmonary Rehabilitation	4	4
Skilled Nursing Unit	4	2
Develop Other Services, Close Acute-Care Beds	4	1
Total	**18**	**12[b]**

SOURCE: Eighteen telephone discussions conducted in 1996.

[a] Two grantees subsequently closed their Rural Health Clinics after implementing them.

[b] An additional grantee plans to open a skilled nursing facility in the third year of the grant. Some discussions about implementation include this grantee.

plans to implement in the third year of the grant. Of the 12 established new services, 10 were still operational at the time of the telephone interview and 2 were discontinued. This experience is similar to that of the 1989 and 1990 RHCT grantees, as discussed in detail in *Guide for HCFA's Rural Health Care Transition Grant Program*.

Implementation success according to project shows that all grantees except those implementing rehabilitation projects had some failures.[1]

- Six grantees planned an RHC, either within the hospital facility or at a distant location owned by the hospital. Of these six, one dropped the idea in the early planning stages and two closed their clinics after they were operational.
- Four grantees planned cardiac and/or pulmonary rehabilitation services. All were implemented, and all will continue beyond the grant period.
- Four grantees planned skilled nursing units or swing beds. Two were implemented and will continue. One grantee postponed the project until after the grant period (but has plans to develop the service) and one grantee plans to open its new service in the third year of the grant.
- Three grantees planned to develop other new services (build senior housing, establish adult day care, and implement case management) and one grantee planned to close some acute-care beds and merge a clinic with the hospital. Grantees planning to close acute-care beds and build senior housing dropped their projects. The grantee planning to establish adult day care postponed its project until after the grant period. A grantee successfully implemented a case management system that is continuing.

2. Problems

Most grantees planning new services had similar planning activities, types of staff involved, leadership, incentives for developing the service, and use of technical assistance. All five grantees that dropped or delayed the planned service did so in the early planning stage as they uncovered problems (discussed in Section B).

---

[1] These projects were for services that were consistent with the ones found to be more frequently offered by the 1995 repeat grantees than by the first-time grantees (see Chapter VI).

a. Community Needs

Most grantees (14) proposed the new service primarily in response to a community need. Of these, five hoped to benefit from increased revenue or staff retention as well. Only three grantees (one planning to close acute-care beds and two planning skilled nursing) sought increased revenue or staff retention as the new service's primary objective.

Eleven of 18 grantees said the grant was an incentive to plan and implement a long-standing idea they could not otherwise afford. For instance, all four grantees planning rehabilitation services indicated they would not have done the project without grant funding. The other seven grantees indicated they would have developed and funded the new service without the grant, including two grantees that delayed the new service until after the grant period.

b. Poor Planning

Most grantees (14) assessed community need, competition, staffing needs, and potential revenue. Needs assessments included a formal, randomized survey; an analysis of hospital use; and organized community forums. Seven grantees noted they have no competitors for any of their services, and most others analyzed the competition for the new service. Grantees assessed staffing needs, and whether this meant restructuring the hospital's organizational chart or recruiting new staff.

The planning process identified reasons not to begin implementing the new service for some grantees. For example, one hospital in Mississippi planned to implement an RHC, but a needs assessment revealed a strong community preference for physicians rather than midlevel practitioners. A Minnesota grantee discovered multiple sources of competition and began to question the financial viability of planned senior housing. Both grantees dropped these problematic objectives. (See Section B.4 for further discussion of nonimplementers.)

Not surprisingly, weaknesses in planning and preparation often led to problems with execution and financial viability. A grantee in Oklahoma planning a skilled nursing unit did not learn that its competitors also planned skilled nursing units, which resulted in low volume. Two grantees planning rehabilitation and one planning primary care did not adequately research reimbursement, which resulted in revenue problems. A Kentucky grantee planning an RHC did not do a formal needs assessment, and extremely low use eventually contributed to this grantee's closing its RHC.

c. Widespread Support

Most grant projects had widespread support during the planning phase. Grantees included the administrator, board, physicians, and hospital staff in planning the project. Only two grantees reported no physician involvement, and both of these dropped or delayed their planned new services. Ten grantees also involved members of the community through needs assessments, planning committees with citizen members, meetings with chambers of commerce, or, in the case of one grantee, joint sponsorship of the grant project by a civic organization. Joint sponsorship of this Texas grantee's RHC was initiated by a hospital board member who was also a member of the Lions Club in a neighboring town. Eventually the editor of that town's newspaper also joined the hospital board. Together these two board members and the Lions Club raised money and support for the RHC.

Seven grantees reported using outside technical assistance (two grantees planning RHCs, three planning rehabilitation services, one planning skilled nursing, and one planning to close acute-care beds and merge a clinic with the hospital). Grantees either hired consultants to perform needs assessments or consulted with facilities that already had the planned service to learn about equipment, staffing, reimbursement, and operating procedures.

3. New Services

Most grantees implemented their grant projects with ease. Though staffing the new services challenged many grantees, all were ultimately successful in contracting with or recruiting appropriate staff. Unless otherwise noted, this section will address 13 of 18 grantees that implemented a new service, including the one grantee planning to open a skilled nursing facility in the third year of the grant.

a. New Staff

Grantees used a combination of current and new staff to direct or to run the new service, with some using the service to entice new staff. New services were implemented by nursing staff, department heads, and sometimes physician staff. Not surprisingly, grantees that implemented RHCs or primary care were more likely than other grantees to have physicians involved with implementation. Two grantees staffed the new service only with new staff, five used a combination of current and new staff, and six (three of which were grantees implementing rehabilitation projects) staffed only with current staff. The administrator of one hospital in Wyoming was specifically hired because of her experience establishing skilled nursing programs. One small, extremely rural hospital in Oklahoma had substantial difficulty attracting physical therapists to staff its skilled nursing unit but eventually succeeded by offering generous salaries. Another grantee implementing a remote RHC reported using local physicians to provide substantial in-kind service for the first three years of clinic operations. Three grantees successfully used their new services (a cardiac rehabilitation project and two rural health clinics) to attract a new physician.

b. Hospital Mission

Eleven of the 13 grantees implementing a new service indicated their mission statement was broad enough to encompass the new service or that the new service fulfilled their mission to serve the community. Only two grantees (one implementing an RHC and the other skilled nursing) changed their mission as a result of the new service. Both of these grantees saw the new service as an opportunity to improve a weak or wordy mission statement and increase staff awareness of the hospital's mission. The grantee implementing skilled nursing reduced its mission statement from four paragraphs to a few sentences and prints the new statement on hospital-issued checks to increase awareness.

c. Opposition from Physicians

Most grantees implemented the new service with support from staff, the board, other providers, or the community. New services were often supported without any special effort by the grantee, though some grantees carefully fostered support through open meetings, visits to other providers, and educational pamphlets. One project director implementing rehabilitation services for a Pennsylvania grantee warded off potential community or physician opposition by personally visiting physicians and community leaders to discuss the new program and hand-delivering fruit baskets and educational pamphlets about the benefits of rehabilitation to physicians and staff.

Three grantees planning RHCs or primary care clinics experienced physician opposition. Two of the five grantees that implemented primary care or RHCs faced mild opposition from a single physician in their community, though other local physicians were supportive. A physician asked one Illinois grantee to stop its physician's assistant from performing physicals for school children, but the grantee refused. A physician refused to become involved with a Texas grantee's RHC because he opposed providing health services to a town 30 miles from the hospital. A grantee experienced a major setback in planning its hospital-based RHC when local physicians withdrew their pledge to supervise the physician's assistant after he was hired. These physicians claimed that supervision was too time-consuming, and the hospital had little remedy because a competing facility owned the physicians' practice. The hospital eventually arranged supervision by purchasing another physician's practice.

d. Debt for Capital Needs

Most grantees (9 of 13) that implemented new services met capital needs with a combination of grant and hospital funds. (See Table VII.2.) Only two grantees incurred debt (loan or bond) to finance capital needs for the new service. Three grantees reserved grant funds for staff salaries and spent hospital funds on capital purchases.

e. Profitable New Services

As might be expected for new services that respond to community need, rather than to hospital financial needs, only 7 of the 12 grantees implementing services intended their new services to be profitable. The remaining five grantees intended their new services to break even financially. After implementation (at the time of the telephone discussions, 2 years after the grant award), however, the financial performance of new services fell below expectations. Only three grantees had implemented services that were profitable and that were expected to be profitable in the long run (a cardiac rehabilitation service, an RHC, and a skilled nursing unit). Two grantees implemented services that were profitable but expect to lose money on them in the future. A skilled nursing facility was profitable for the first 2 years while Medicare paid costs without regard to the cost limit, but Medicare reimbursement declined sharply when the Medicare SNF maximum cost limit went into effect. A new service, cardiac rehabilitation, has been profitable while residents address accumulated demand. After the initial demand is satisfied, the grantee expects the cardiac rehabilitation will be unprofitable. Four new services

TABLE VII.2

SOURCES OF FUNDING FOR NEW SERVICES

- Both grant and hospital funds for capital purchases (seven grantees)
- Only hospital funds for capital purchases (three grantees)
- Bank loan for capital purchases (one grantee)
- General obligation bond or community donations, grant funds, and hospital funds for capital purchases (two grantees)

SOURCE: Telephone discussions conducted in 1996.

NOTE: Respondents are 13 grantees that implemented new service, including one grantee implementing in third year of grant.

(three RHCs and case management) were breaking even financially. Three services (two cardiac rehabilitation services and one RHC) were losing money.

Most grantees that implemented services (9 of 12 grantees) expect the hospital to benefit in the long term in some way--either through direct revenues from new services or indirectly because patients choose the hospital due to familiarity with the new service implemented through the grant.

A few grantees had either especially lucrative or financially draining grant projects. Two skilled nursing facilities (one in Kentucky and one in Oklahoma) were strong revenue producers. The Kentucky grantee partially attributed recent, strong financial performance to its new SNF, reporting revenues "from day one." The Oklahoma grantee's SNF was profitable for the first 2 years of operations while cost-reimbursed without limit, but may become unprofitable because maximum cost limits went into effect. One RHC in Kentucky closed after a year and 9 months due to low volume and a net loss of approximately $120,000 for the hospital. (See Section B.4, which discusses nonimplementation and discontinued services, for further discussion of this grantee.)

f. Lack of Funds

Grantees reported a wide variety of obstacles to success, and the type of planned service appears to have no bearing on the kind or severity of obstacles faced.[2] The most common obstacle was lack of space or funds (nine grantees). (See Table VII.3.) Three grantees worked to overcome problems with physician support. Others faced problems with community support, competition, recruiting new staff, reimbursement, and changes caused by new affiliations.

---

[2] This section addresses all grantees implementing new services (18) , including those 5 "nonimplementers" for whom obstacles led to the delay or abandonment of the proposed service. Section B.4 contains further discussion of grantees that dropped or delayed planned new services.

Problems also ranged widely in severity. Some grantees faced problems, such as having an insufficient physical plant for the new service, that required large expenditures and changes in planning to overcome. One Pennsylvania grantee implementing rehabilitation services overcame a severe lack of space by doubling up hospital staff, two to an office. Three grantees either built or purchased new facilities to accommodate the planned project. Other grantees overcame obstacles with minimal delay and expense (such as understanding regulations and recruiting new staff) through focused and aggressive planning.

4. Grantees Did Not Implement or Discontinued New Services

Six grantees had not implemented a proposed new service by the time of the interview. The experiences of these grantees are similar to earlier cohorts discussed in the *Guide for HCFA's Rural Health Care Transition Grant Program*. Three grantees dropped new services because of changes in their affiliations or problems identified in the planning stage. One Mississippi grantee planned a rural health clinic to secure its referral base, but when it affiliated with a larger health care network it satisfied this objective. This grantee also identified community opposition to midlevel practitioners and potential competition from other providers as barriers. Another grantee planned to close acute-care beds and merge with a clinic to increase financial viability. Instead, it affiliated with a medical school residency program that both required acute-care beds

TABLE VII.3

OBSTACLES TO NEW SERVICE

- Shortage of funds/problems with reimbursement or revenue (six grantees)
- Shortage of space or problems with facility (five grantees)
- Problems with physician support (three grantees)
- Lack of expertise in planning and implementing, problems with state regulations, or inconsistent with hospital's mission (three grantees)
- Lack of community support (two grantees)
- Competition (two grantees)
- Difficulty recruiting (two grantees)
- New affiliation (two grantees)

SOURCE: Telephone discussions with 18 grantees conducted in 1996.

NOTE: Some grantees mentioned more than one obstacle to success.

and also improved the hospital's viability. A grantee that planned senior housing and dropped the objective identified problems in the planning stage: questionable financial viability, conflicts with the hospital's mission statement, and potential competition from both developers and the local nursing home.

Three grantees delayed the implementation of their new services--two skilled nursing units, and one adult day care--because of insufficient facilities. At the time of the telephone interview, all had started construction on new buildings to accommodate the planned services. One of these grantees will open its skilled nursing unit in the third year of the grant.

Two grantees that successfully implemented their new service (RHCs) eventually closed them. One grantee in Texas opened a lucrative RHC and used it to successfully attract a new physician. While the physician stayed in the community, the clinic closed in July 1996 because changes in Medicaid reimbursement diminished profitability. Under Federal section 1915(b) waivers, Texas requires Medicaid beneficiaries to enroll in managed care organizations in the grantees' area. In order to continue to serve Medicaid patients, this RHC had to contract with managed care organizations. The managed care organizations were not reimbursing at the same level as the clinic received prior to the Medicaid waiver.

Another grantee suffered significant financial losses from RHC operations. This grant project was plagued by problems from the start. While the grantee is located in Indiana, it planned the new RHC in Kentucky. The hospital staff was unfamiliar with Kentucky regulations, which caused delays. Furthermore, five hospital physicians who had pledged to supervise the RHC's midlevel practitioner learned they would have to purchase Kentucky malpractice insurance, so all withdrew their support. The hospital eventually arranged supervision through a Kentucky physician. The clinic never attained the predicted volume of 15 to 20 patients per day, attracting only 4 to 5. Low volume was attributed to three factors:

1. The Kentucky community had experienced substantial turnover of providers, and residents were hesitant to seek care from newcomers.
2. The local health department recruited a physician to treat patients 3 days per week, providing significant competition for the midlevel practitioner.
3. The town's largest employer hired its own physician to provide inexpensive care to its employees and their dependents, effectively removing approximately 2,000 people from the RHC's potential service population.

When the grantee finally closed the RHC after a year and 9 months of operation, it had sustained losses of approximately $120,000 in excess of grant funds. This grantee's experience illustrates the importance of early and frequent communication with other providers and community representatives to the success of a project.

C. OTHER HOSPITAL INITIATIVES

Here we examine whether grantees' planned new services complemented existing efforts to develop profitable services or meet service needs of local residents. This section covers all 18 grantees in our sample.

1. Potential for Growth in Non-Acute Care

Most grant projects developed services that hospital administrators believed had potential for growth. Growth in current services reflects national trends of declining or flat growth in inpatient services and strong growth in outpatient services.

- Not surprisingly, all but one grantee reported medium or high potential for growth in outpatient services, with some grantees describing "limitless" potential. Grantees implementing RHCs or cardiac or pulmonary rehabilitation helped to develop this potential.

- Eleven grantees reported medium or high growth potential in other hospital services. Grantees referred to a wide variety of other services, including durable medical equipment sales, home care, and geriatric psychology. Grantees implementing case management helped to develop this potential.

- Nine grantees reported medium or high potential growth in inpatient nonacute care for programs such as skilled nursing (two from grant funds) and hospice care.

- Only three grantees reported any potential growth in inpatient acute care. Their grant projects did not directly develop this potential, however. Two of these grantees planned to use grant funds to implement RHCs and one planned to close some acute-care beds and merge with a clinic.

2. Diagnostic Services

Grantees reported a variety of services as among their most profitable services:

- Diagnostic services, such as laboratory and radiology (seven grantees)

- Rehabilitation services, such as physical and respiratory therapy (six grantees)

- Surgery (often outpatient surgery), (five grantees)

- Pharmacy services (three grantees)

- Other services (physician outpatient care, obstetrics, inpatient chemical dependency treatment, and skilled nursing), (four grantees)

Only one new service implemented with the grant (a skilled nursing unit) was mentioned as among the most profitable. However, the grantee expects the unit to lose money in 1997 because the unit will be subject to the cost limit for Medicare reimbursement. The two grantees implementing profitable cardiac or pulmonary rehabilitation did not mention their new services in this discussion.

3. Unprofitable Services

Most grantees reported at least one unprofitable service, but discontinuing the service would have adverse effects on the hospital and/or community. Two grantees reported none of their services is unprofitable. The other 16 grantees reported the following unprofitable services:

- Eight grantees noted inpatient treatment, most commonly acute care, is their most unprofitable service. Of these, three mentioned low rates of Medicare reimbursement as the reason the service is unprofitable. One grantee developed its case management grant project to reduce losses in inpatient care.
- Three grantees indicated delivering babies is their most unprofitable service.
- Three grantees said the emergency room is least profitable.
- Two grantees noted health education and wellness activities are the least profitable. One of these grantees considers its grant-funded balance and strength training program as an unprofitable wellness activity, but retains it because its cardiac rehabilitation program needs referrals from this activity to improve its profitability.
- One grantee mentioned each of the following as its least profitable service: a grant- funded RHC (that it discontinued), swing beds, or an ambulance service.

4. Profitable New Services

Most grantees (15 of 18) are planning at least one new service, with many grantees planning multiple services in a wide range of areas (See Table VII.4). The most common new planned service is rehabilitation or physical therapy (five grantees).

In contrast to grantees' community service objective for grant projects, most grantees are seeking immediate and long-term revenue from self-funded services. With the exception of one grantee that is planning a congestive heart failure program to complement its grant-funded cardiac rehabilitation service, grantees are not planning other new services to enhance grant projects.

D. STRATEGIC OBJECTIVES, HOSPITAL WEAKNESSES, THREATS

Grant projects could address other issues facing hospitals. Here we examine whether the new services implemented with the grant address strategic objectives, weaknesses, or threats at the hospitals.

1. Improving Community Relations

Most grant projects supported grantees' strategic objectives of expanding services or improving viability. (See Table VII.5.) However, only five grantees mentioned improving community relations as a strategic objective. As mentioned earlier, responding to community need motivated 14 grantees to propose implementing a new service with the grant. Three of the five grantees that listed improving community relations as an objective used the grant project to address that objective--one RHC and two cardiac rehabilitation projects.

TABLE VII.4

OTHER NEW SERVICES PLANNED BY GRANTEES

- Rehabilitation or physical therapy (five grantees)
- Long-term care beds/skilled nursing (two grantees)
- Clinic or primary care services (two grantees)
- Geriatric services (two grantees)
- Employee or community wellness (two grantees)
- Chemical dependency treatment (two grantees)
- Occupational health (two grantees)
- Other services: expanding current oncology services, durable medical equipment sales, and diagnostic services (three grantees)

SOURCE: Telephone discussions conducted in 1996 with 15 grantees planning other new services.

NOTE: Most grantees mentioned more than one planned new service.

TABLE VII.5

GRANTEES' REPORTED STRATEGIC OBJECTIVES

- Expand or improve services (nine grantees)
- Remain viable (six grantees)
- Recruit providers (six grantees)
- Prepare for managed care or sign managed care contracts (six grantees)
- Market/increase volume (six grantees)
- Improve community relations (five grantees)
- Affiliate with clinic or another hospital (three grantees)
- Improve physician relations or develop a PHO (three grantees)
- Automate information systems or inventory control and patient charts (two grantees)
- Other: provide caring service, educate employees, establish residency program, renovate, purchase land, start hospital foundation, purchase new equipment (seven grantees)

SOURCE: Eighteen telephone discussions conducted in 1996.

NOTE: Each grantee reported three objectives.

2. Weaknesses and Threats

The most common threats to grantee viability are: competition, decreasing reimbursement, physician and management shortages, and failure to market effectively. The highest number of grantees (11) mentioned competition, low volume, or out-migration as the major threat to their viability. A large number of grantees (10) are threatened by decreasing reimbursement. A few of these 10 grantees mentioned managed care and capitated payment as the source of decrease, but most indicated unpredictable decreases in Medicaid and Medicare reimbursement are their biggest concern. A smaller number of grantees experience physician or management shortages; weak marketing, poor reputation, or low awareness of services; and staff problems including low morale, insufficient training, or lack of leadership.

Most projects did not address the threats to or weaknesses of hospitals, but two grant projects ameliorated threats to grantees and one project added to the grantee's problems. The two grantees that were helped by their new services include a Georgia grantee with low volume that may recapture patients through primary care in the emergency room and a Kentucky grantee that improved its aged facility by converting a wing to a modern skilled nursing unit. A grantee threatened by competition lost money, patients, and some community trust when its remote RHC closed. (See Table VII.6.)

3. Strengths and Opportunities

Grantees reported a variety of strengths and opportunities, with two-thirds (12 grantees) indicating their biggest asset is a caring, supportive staff and board. Grantees took pride in

TABLE VII.6

PERCEIVED THREATS TO GRANTEE VIABILITY

- Competition, low volume or out migration (11 grantees)
- Low or decreasing reimbursement from managed care, Medicaid, or Medicare (10 grantees)
- Physician or management shortage (5 grantees)
- Weak marketing, poor reputation, or low community awareness of services (5 grantees)
- Staff problems such as low morale, insufficient training, or lack of leadership (4 grantees)
- Old or inefficient physical plant (3 grantees)

SOURCE: Eighteen telephone discussions conducted in 1996.

NOTE: Many grantees reported more than one weakness or threat.

the "family-oriented" atmosphere, characterized by personal relationships between hospital staff and patients, at their hospitals. Grant projects, which often required staff to provide in-kind service or work longer hours, often built upon this high level of board and staff commitment to the hospital. Six grantees also benefit from high levels of community support. Other grantees mentioned affiliation with physicians or another facility, expanding services, and modernizing equipment as a strength or opportunity. (See Table VII.7.)

E. CONCLUSION

Two factors largely account for grantees' ability to successfully implement a new service. First, new services responded to community need. Hospital staff, including physicians, were motivated by the desire to serve their patients better, and the community was often grateful for the new service. Some staff were willing to provide in-kind labor in order to implement the new service. Grantees that dropped or delayed plans to develop new services generally did so because of logistical problems, such as lack of space, not because of opposition from staff or the public. Second, the availability of grant funds allowed the new service to be less profitable than hospital-funded services. Seven grantees planned new services to be profitable, but only five grantees had profitable services after implementation and only three of them expect continued profitability.

New services implemented through the grant did little to address short-term threats to grantees' viability. The most common threats to viability were low use of existing services and decreasing reimbursement. There is little evidence that any of the new services contributed to use of existing services. Only three grant projects (SNF, cardiac rehabilitation, and RHC) are

TABLE VII.7

GRANTEE STRENGTHS AND OPPORTUNITIES

- Staff/board support or personalized patient care (12 grantees)
- Affiliation with physicians or another facility (7 grantees)
- Community support (6 grantees)
- Expanded services/modern equipment (6 grantees)
- Financial strength (3 grantees)
- New patients/increased volume (2 grantees)
- Managed care (2 grantees)
- Others: health promotion, grant project, good location, competitors closing, and medical residency program (5 grantees)

SOURCE: Eighteen telephone discussions conducted in 1996.

NOTE: Grantees listed more than one strength and opportunity.

expected to contribute to grantees' profitability on a sustained basis. Most implemented grant projects may eventually provide grantees with benefits such as community good will, physician recruitment, and long-term revenues.

New services implemented by grantees play a role in grantees' long-term viability because the services respond to community need. Often, grantees used the grant to implement services that had great community support but little promise of profitability. The challenge to grantees will be to balance these unprofitable services with profitable ones. As grantees noted, discontinuing unprofitable services is often untenable because the resulting loss of community support can be as damaging to the hospital as keeping an unprofitable service. On the other hand, unprofitable services that have great community support can eventually help the hospital. Many of these services provide publicity for the hospital and offer the public positive experiences with the hospital. For instance, people using the RHCs for primary care may feel more comfortable using the local hospital for inpatient care.

Grantees are aware of and implement self-funded services they believe to be profitable. Services that grantees plan to implement with their own funding include: rehabilitation services, physical therapy, skilled nursing units, and primary care services. The experience of grantees has shown that three of these services (rehabilitation, skilled nursing, and RHC) can be profitable, even when the services respond primarily to community need and not to hospital viability. Implementing such profitable services will enable grantees to continue the unprofitable services implemented with their RHCT grants.

REFERENCES

Bergeron, Jeanette, Charles Nagatoshi, and Mona Shah. "Evaluation of the Grant Program for Rural Health Care Transition: 1996 Annual Report." Princeton, NJ: Mathematica Policy Research, Inc., March 11, 1996.

Bergeron, Jeanette, Catherine Daly, and Rachel Thompson. "Evaluation of the Grant Program for Rural Health Care Transition: 1995 Annual Progress Report." Princeton, NJ: Mathematica Policy Research, Inc., March 1995.

Cheh, Valerie, and Judith Wooldridge. "The Final Evaluation on the 1989 Grant Program for Rural Health Care Transition: Send Us More Doctors--Please." Princeton, NJ: Mathematica Policy Research, Inc., March 2, 1993.

Cheh, Valerie, Marisa Giggie, and Judith Wooldridge. "Evaluation of the Grant Program for Rural Health Care Transition: Eighth Semi-Annual Progress Report." Princeton, NJ: Mathematica Policy Research, Inc., October 1993.

Cheh, Valerie, Marisa Giggie, Charles Nagatoshi, and Judith Wooldridge. "Evaluation of the Grant Program for Rural Health Care Transition: Sixth Semi-Annual Progress Report." Princeton, NJ: Mathematica Policy Research, Inc., August 1992.

Cheh, Valerie, Katherine Condon, Charles Nagatoshi, and Judith Wooldridge. "Evaluation of the Grant Program for Rural Health Care Transition: Fourth Semi-Annual Progress Report." Princeton, NJ: Mathematica Policy Research, Inc., July 1991.

Cheh, Valerie, Katherine Condon, and Judith Wooldridge. "Evaluation of the Grant Program for Rural Health Care Transition: Third Semi-Annual Progress Report." Princeton, NJ: Mathematica Policy Research, Inc., January 22, 1991.

Cheh, Valerie, Marisa Giggie, Charles Nagatoshi, and Judith Wooldridge. "Evaluation of the Grant Program for Rural Health Care Transition: Fifth Semi-Annual Progress Report." Princeton, NJ: Mathematica Policy Research, Inc., December 17, 1991.

Hudson, Terese. "Rural Priorities." *Hospitals and Health Networks*, vol. 69, no. 4, February 20, 1995, pp. 40-44.

Lumsdon, Kevin. "Faded Glory: Will Nursing Ever Be the Same?" *Hospitals and Health Networks*, vol. 69, no. 23, December 5, 1995, pp. 30-35.

Shortell, Stephen M., Robin R. Gillies, and Kelly J. Devers. "Reinventing the American Hospital." *The Milbank Quarterly*, vol. 73, no. 2, 1995, pp. 131-160.

Shortell, Stephen M., Ellen M. Morrison, and Bernard Friedman. *Strategic Choices for America's Hospitals. Managing Change in Turbulent Times.* San Francisco: Jossey-Bass, 1992.

U.S. Department of Commerce. *Survey of Current Business*. USPS Publication no. 337-790. Washington, DC: U.S. Government Printing Office, July 1992.

U.S. Department of Commerce. *Survey of Current Business*. USPS Publication no. 337-790. Washington, DC: U.S. Government Printing Office, September 1995.

U.S. Department of Health and Human Services. *Guide for HCFA's Rural Health Care Transition Grant Program*. HCFA Publication No. 03362. Baltimore, MD: Health Care Financing Administration, November 1994.

Wooldridge, Judith, Valerie Cheh, Nancy Holden, Lorenzo Moreno, and Marisa Giggie. "The Final Evaluation on the 1990 Grant Program for Rural Health Care Transition." Princeton, NJ: Mathematica Policy Research, Inc., June 1994.

APPENDIX A

RURAL HEALTH CARE TRANSITION GRANTEES AND FIRST-YEAR AWARDS 1996

TABLE A.1

FUNDS AWARDED UNDER THE RURAL HEALTH CARE TRANSITION GRANTS PROGRAM, 1996

State	Hospital Name	First-Year Funding (Dollars)
AK	South Peninsula Hospital	50,000
AR	Stuttgart Memorial Hospital	50,000
AZ	Page Hospital	50,000
AZ	White Mountain Communities Hospital	50,000
CA	Mark Twain St. Joseph's Hospital	50,000
CA	Sonora Community Hospital	50,000
CO	Clagett Memorial Hospital/Grand River Hospital District	50,000
CO	Family Health West	50,000
FL	Hendry General Hospital	50,000
IA	Adair County Memorial Hospital	18,000
IA	Audubon County Memorial Hospital	18,000
IA	Davis County Hospital	18,000
IA	Greene County Medical Center	50,000
IA	Guthrie County Hospital	18,000
IA	Hamilton County Public Hospital	0
IA	Mahaska County Hospital	50,000
IA	Manning General Hospital	18,000
IA	Monroe County Hospital	18,000
IA	Ringgold County Hospital	18,000
IA	St. Anthony Regional Hospital	18,000
IA	St. Joseph's Mercy Hospital	18,000

TABLE A.1 *(continued)*

State	Hospital Name	First-Year Funding (Dollars)
IA	Story County Hospital	18,000
IA	Washington County Hospital	50,000
IA	Wayne County Hospital	18,000
IA	Winneshiek County Memorial Hospital	50,000
ID	Teton Valley Hospital	50,000
IL	Iroquois Memorial Hospital	50,000
IL	Sparta Community Hospital	32,836
IN	Fayette Memorial Hospital	50,000
IN	Orange County Hospital	50,000
IN	Randolph County Hospital	50,000
KY	Marymount Medical Center	50,000
KY	Our Lady of the Way Hospital	50,000
LA	Allen Parish Hospital	50,000
LA	Pointe Coupee General Hospital	50,000
LA	Richland Parish Hospital	50,000
LA	St. James Parish Hospital	50,000
LA	Tri-Ward General Hospital	50,000
MD	Garrett County Memorial Hospital	50,000
ME	C.A. Dean Memorial Hospital	50,000
ME	Down East Community Hospital	50,000
MI	Gerber Memorial Hospital	50,000
MN	Arlington Municipal Hospital	50,000
MN	Bridges Medical Services	50,000
MN	Chippewa County Montevideo Hospital	45,133

TABLE A.1 *(continued)*

State	Hospital Name	First-Year Funding (Dollars)
MN	Kittson Memorial Hospital	50,000
MN	Madison Hospital	45,133
MN	St. Gabriel's Hospital	50,000
MN	Tyler Health Center	45,133
MN	Wheaton Community Hospital	50,000
MT	Clark Fork Valley Hospital	50,000
MT	Community Memorial Hospital	48,460
MT	Marcus Daly Memorial Hospital	50,000
MT	Roosevelt Memorial Hospital	49,660
NC	Ashe Memorial Hospital	50,000
ND	Jacobson Memorial Hospital Care Center	50,000
ND	Mercy Medical Center	49,460
ND	Richardton Health Center, Inc.	50,000
ND	St. Joseph's Hospital and Health Center	50,000
NE	Antelope Memorial Hospital	8,000
NE	Boone County Health Center	50,000
NE	Box Butte General Hospital	50,000
NE	Brown County Hospital	8,000
NE	Community Hospital Association	50,000
NE	Creighton Area Health Services	8,000
NE	Gothenburg Memorial Hospital	39,300
NE	Kimball County Hospital	50,000
NE	Legend Buttes Health Services	50,000
NE	Niobrara Valley Hospital	8,000

TABLE A.1 *(continued)*

State	Hospital Name	First-Year Funding (Dollars)
NE	Osmond General Hospital	8,000
NE	Plainview Public Hospital	8,000
NE	Rock County Hospital	8,000
NE	St. Anthony's Hospital	8,000
NE	Tilden Community Hospital	8,000
NE	West Holt Memorial Hospital	8,000
NH	Upper Connecticut Valley Hospital	50,000
NH	Valley Regional Hospital	50,000
NV	Humboldt General Hospital	42,370
NY	Alice Hyde Hospital Association	50,000
NY	Genesee Memorial Hospital	33,368
NY	Ira Davenport Memorial Hospital	49,834
NY	Medina Memorial Hospital	33,368
NY	Wyoming County Community Hospital	33,368
OH	Van Wert County Hospital	50,000
OK	Baptist Regional Health Center	50,000
OR	Wallowa Memorial Hospital	50,000
SD	Bennett County Hospital	50,000
SD	Coteau des Prairies Hospital	49,985
SD	Custer Community Hospital	50,000
SD	Five Counties Hospital	50,000
SD	Hans P. Peterson Memorial Hospital	50,000
SD	Lake Area Hospital	49,985
SD	Northern Hills General Hospital	50,000

TABLE A.1 *(continued)*

State	Hospital Name	First-Year Funding (Dollars)
SD	Prairie Lakes Hospital and Care Center	49,985
SD	St. Bernard's Providence Hospital	49,985
TN	Coffee County General Hospital	50,000
TX	Collingsworth County Hospital	50,000
TX	Colorado-Fayette Medical Center	50,000
TX	Ochiltree General Hospital	50,000
TX	Yoakum Community Hospital	50,000
UT	Allen Memorial Hospital	18,000
VA	Norton Community Hospital	50,000
WA	Prosser Memorial Hospital	50,000
WA	Tri-State Memorial Hospital	50,000
WI	Community Memorial Hospital	50,000
WI	Cumberland Memorial Hospital	50,000
WV	Broaddus Hospital Association	50,000
WV	Davis Memorial Hospital	50,000
WY	Campbell County Memorial Hospital	27,472
WY	Weston County Memorial Hospital	50,000

SOURCE: Friday Systems Services, Inc.

APPENDIX B

SCORE ADJUSTMENT PROCESS

This appendix documents how the scores of 1996 grant applications were adjusted to account for differences in panels' scoring, as well as how the adjusted scores were rescaled for easier interpretation. This work was conducted under federal contract by Friday Systems Services, Inc.

To adjust the scores, the mean and standard deviation of the total scores for all proposals reviewed by each panel were calculated. The panel mean then was subtracted from each individual score, and this difference was divided by the panel standard deviation. Define X_{ip} as the individual proposal score assigned by the panel, X_p as the mean of all scores X_{ip} for that panel, and S_p as the standard deviation of the panel mean. The adjusted score (T_{ip}) is then calculated as:

$$(1) \quad T_{ip} = (X_{ip} - X_p)/S_p.$$

To rescale the adjusted scores so that they are easier to interpret, the maximum adjusted score and minimum adjusted score across all applicants were first identified. Define T_{max} as the maximum score, and T_{min} as the minimum. The rescaled score is then calculated as:

$$(2) \quad Score = \frac{T_i - T_{min}}{T_{max} - T_{min}} x100.$$

This rescaling process resulted in scores ranging from 0 to 100, the same as the original range of the panel-assigned scores. The process maintained the distribution and ranking of the adjusted scores.

APPENDIX C

TELEPHONE INTERVIEW PROTOCOL, 1994 GRANTEES

Hospital Name ____

Respondent Name , Title _________________________________

Years in current position __________________________________

Phone Number ____

PROTOCOL FOR TARGETED TELEPHONE INTERVIEWS GRANTEES IMPLEMENTING NEW SERVICES

1. Introduction: This is ____________ calling from Mathematica Policy Research. As part of our monitoring of the Rural Health Care Transition grantees, we contact a sample of grantees each year to hear the details of how grantees are proceeding with grant activities. In reviewing the forms that your hospital sent to us, we noticed that you are using the grant to implement _______________, which appears to be a service that your hospital has not previously offered. Is that correct?

2. Is the service now up and running, are you continuing to work to implement the service, or have you decided to not implement _________ (service or change)?

2a. **ASK ONLY IF UNCLEAR FROM BACKGROUND INFORMATION** Briefly, describe ________________service.

2b. **If the background information and their description are very different:** Did you change or modify the service you intended to implement while planning or implementing your project?

- *Probe to determine whether this is a modified goal or a "decided not to implement."* I reviewed a summary of your grant application, and the hospital seems to have intended to implement ________________. Were you at the hospital in 1994 when the hospital applied for the grant?"

IF UP AND RUNNING OR CONTINUING TO WORK TO IMPLEMENT, GO TO P. 5

PROTOCOL FOR “DECIDED NOT TO IMPLEMENT” RESPONSE TO QUESTION 2:

3. Why did you decide to diversify or reduce acute care services in the first place?
   - Coding categories:
     - to meet need in the community
     - to increase revenue
     - to help retain staff

4. What role did the following parties play in developing the idea to diversify or reduce hospital services, and how early did they participate? (Instrumental, supportive, no role, unsupportive)

   1. Administrator

   2. Board

   3. Physicians

   4. Staff/middle management

   5. Community

   6. Other providers

5. Did the availability of grant money influence your decision? (Were you planning to do this anyway?)

6. What made you change your plans about the service/change?

- Were the following factors a part of your decision not to diversify or reduce hospital services: **ASK ABOUT ISSUES NOT DISCUSSED ALREADY.**

1. Did a needs assessment indicate inadequate demand for the service?

2. Was the service already provided or planned by a competitor?

3. Was revenue or reimbursement insufficient to meet costs?

4. Were you unable to recruit staff?

5. Were you unable to motivate staff to support changed mission?

g. Were you unable to find appropriate outside support or technical assistance to implement the service/change?

7. What role did the ___________ **(fill in from below)** play in abandoning the proposed service/change?
   1. Administrator

   2. Board

3. Physicians

4. Staff/middle management

5. Community

6. Other providers

GO TO PAGE 10

PROTOCOL FOR "UP AND RUNNING" OR "CONTINUING TO WORK TO IMPLEMENT" RESPONSE TO QUESTION 2:

Now I'd like to ask you some questions about the planning process.

3. Why did you develop the new service/change your services?
   - Coding categories:
     - to meet community need
     - to increase revenues
     - to retain staff

4. How was __________ **(fill in from below)** addressed in the planning process?

   1. Demand for the service (needs assessment)

   2. Competition

   3. revenue from (reimbursement for) the service

   4. Staffing

   5. Motivation for staff to support changed mission **(if relevant)**

4. How were/was _____________ **(fill in from below)** involved with the planning process?

   a. physicians

b. the board

c. hospital staff

d. the community

- Did outside support or technical assistance help implement the new service or change?

- Did the availability of grant money influence your decision to develop the new service or reduce beds? (Were you planning to do this anyway?)

Now, I have some questions about the implementation of the grant project.

5. What role did___________ **(fill in from below)** play in the implementation process?
   a. the Administrator

   b. the Board

   c. Physicians

d. Staff/middle management

e. the Community

f. Other providers, if any:

[For a-f, but especially physicians and other providers]

1. How did you develop their participation or support?
2. Have any of those parties expressed opposition to the service/change?

3. 6. How was the service or change implemented?
4.

a. Who led effort--how was the person selected?

b. How was it staffed?

c. How were capital needs met?

d. How did the service/change affect staff duties or the organizational chart of the hospital?

e. Did you need to get a certificate of need approval--how did that proceed?

f. How did you generate utilization--physician referral, self-referral, post-acute care referral, other?

g. Have revenues met expectations?

h. Have costs met expectations?

Is the service or change helping the hospital's immediate bottom line? How?

The long-term bottom line? How?

7. What was the most important factor in implementing the service/change?

8. What was your biggest obstacle to implementing the service/change?

9. **(Ask only if relevant)** Did you change the hospital's mission statement as a result of the new service/change?

    - If so, how did the hospital motivate staff to implement the new mission?

Now I'd like to put your experience in the context of your current services and strategic planning.

10. What is the potential for growth in ____________ **(fill in from below)**?

a. Inpatient acute care services

b. Inpatient non-acute care services

c. Outpatient services

d. Other services

11. Which services are the most profitable?

11a. Which services are the most unprofitable?

IF APPLICABLE:
a. Why are unprofitable services maintained?

b. What would happen if you discontinued them?

12. Are you planning to develop new services to increase revenue? Which ones?

How has the planning process addressed:

a. Demand for the service (needs assessment)?

b. Competition?

c. Sufficient revenue or reimbursement?

d. Staffing?

13. What are three top priorities of the hospital's strategic plan?

a. How are you planning to meet them?

b. **(if not mentioned)** Are you intending to:

i. Target new populations in your current service area?

ii. Expand to other geographic markets--if so, will you be competing against another provider?

iii. Refine current services to increase efficiency and reduce costs?

CONCLUSION

14 What is the biggest threat to the hospital?

15. What is the major weakness of the hospital?

16. What is the major strength of the hospital?

17. What is the biggest opportunity for the hospital?

That was the last question I have. Do you have any questions? Thank you for discussing your experience with this grant project with me.

CMS LIBRARY
3 8095 00005843 4